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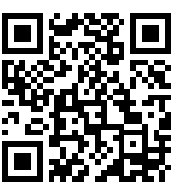

THE CLEVELAND STEAM SUPPLY CO.
CLEVELAND

THE JOHN CRERAR LIBRARY
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W. M. PATTISON, PRESIDENT. W. H. SMITH, VICE PRESIDENT.

ARTHUR JONES, SECRETARY.

The W. M. Pattison Supply Company.

HEAVY HARDWARE.

SUPPLIES

FOR

STEAM FITTERS, MACHINISTS, ENGINEERS, RAILWAYS, MILLS, MINES, FACTORIES AND CONTRACTORS.

MACHINERY.

ENGINES, PUMPS, BOILERS, ETC.

CLEVELAND.

1904.

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PREFACE

GENERAL CATALOGUE

1904

We herewith present to our friends and patrons our General Catalogue.

Owing to the constant fluctuations in prices we do not issue a discount sheet. We will be pleased at all times to make quotations on any goods you may require and earnestly endeavor to merit your patronage. Our prices will always be as low as goods of equal merit can be obtained.

We thank our friends for the many favors received from them and trust to obtain the good will and patronage of those whose acquaintance we may make in the future.

MAIL ORDERS. We desire especially to call your attention to our mail order department. It is our desire to build up this feature of our business, and any such orders or inquiries will receive the same careful attention as though delivered in person.

Respectfully,

THE W. M. PATTISON SUPPLY CO.

115091

JANUARY, 1904.

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SPECIAL NOTICE

COMPLAINTS concerning defective goods or errors should be made at once.

ERRORS, SHORTAGE, ETC. Claims for errors, shortage, etc., must be made on receipt of goods; otherwise no allowance will be made.

QUOTATIONS. All quotations are subject to change without notice.

RESPONSIBILITY. We will not be responsible for delays, resulting from strikes, accidents, negligence of railroad companies, or other causes beyond our control.

RETURNING GOODS. No goods will be received if returned, unless by special agreement.

RISK. All goods are at the risk of the purchaser, after they have been delivered by us to the carrier and their receipt obtained for same "in good order."

SHIPPING INSTRUCTIONS. Instructions as to route, etc., should accompany each order, otherwise the route is optional with us.

SPECIAL GOODS. Orders for goods of special style, shape or finish, will not be cancelled unless the time limit on same has expired.

TERMS. 60 days, 2 per cent. cash 10 days, unless otherwise specified.

To Avoid Errors, Give Figure Numbers When Ordering Goods.

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STANDARD STEAM, GAS AND WATER PIPE.

THE W. M. PATTISON SUPPLY CO. CLEVELAND

Black and Galvanized.

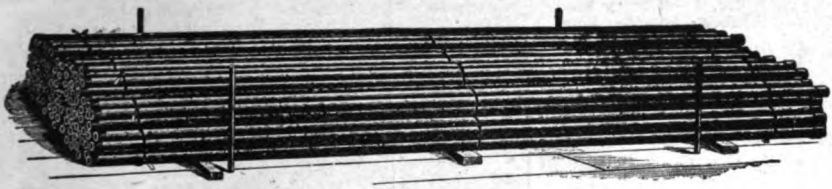

FIG. 1.

Size. Inches.	Price, Black or Galvanized per Foot.	Actual Outside Diameter, Inches.	Thickness, Inches.	Nominal Weight per Foot, Pounds.	Number of Threads per inch of screw.
⅛	.05½	.40	.068	.24	27
¼	.05½	.54	.088	.42	18
⅜	05½	.67	.091	.56	18
½	.08½	.84	.109	.84	14
¾	.11½	1.05	.113	1.12	14
1	.16½	1.31	.134	1 67	11½
1¼	.22½	1.66	.140	2.24	11½
1½	.27	1.90	.145	2 68	11½
2	.36	2.37	.154	3.61	11½
2½	.57½	2 87	.204	5 74	8
3	.75½	3.50	.217	7 54	8
3½	.95	4.00	.226	9 00	8
4	1.08	4.50	.237	10 66	8
4½	1.30	5.00	.246	12.49	8
5	1.45	5.56	.259	14.50	8
6	1.88	6.62	.280	18.76	8
7	2.35	7.62	.301	23.27	8
8	2.82	8.62	.322	28 18	8
9	3.40	9.68	.344	33 70	8
10	4.25	10.75	.366	40.00	8
11	4.75	11.75	.375	45.00	8
12	5.20	12.75	.375	49.00	8

Unless otherwise ordered, black pipe, random lengths, with threads and couplings will be shipped.

For cut lengths, an extra charge will be made above random lengths.

For pipe smoothed on the inside, known as plugged and reamed, an extra charge will be made above regular pipe.

For galvanized pipe, an extra charge will be made above black.

For asphalted pipe, an extra charge will be made above black.

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EXTRA AND DOUBLE EXTRA STRONG STEAM, GAS AND WATER PIPE.

Extra Strong—Black.

Size, Inches.	Price, Black, per Foot.	Nominal Inside Diameter, Inches.	Actual Outside Diameter, Inches.	Thickness, Inches.	Nominal Weight per Foot, Pounds.
⅛	.11	.205	.405	.100	.29
¼	.11	.294	.540	.123	.54
⅜	.11	.421	.675	.127	.74
½	.12	.542	.840	.149	1.09
¾	.15	.736	1.05	.157	1.39
1	.22	.951	1 315	.182	2.17
1¼	.30	1.272	1.66	.194	3.00
1½	.36	1.494	1.90	.203	3.63
2	.50	1.933	2 375	.221	5.02
2½	.81	2.315	2 875	.280	7.67
3	1.05	2.892	3.500	.304	10.25
3½	1.33	3.358	4.000	.321	12.47
4	1.50	3.818	4.500	.341	14.97
4½	1.95	4.220	5 000	.360	18 22
5	2.16	4.813	5 563	.375	20.54
6	2.90	5.750	6.625	.437	28.58
7	3.80	6.625	7 625	.500	37.67
8	4.30	7.625	8.625	.500	43.00

Double Extra Strong—Black.

Size, Inches.	Price, Black, per Foot.	Nominal Inside Diameter, Inches.	Actual Outside Diameter, Inches.	Thickness, Inches.	Nominal Weight per Foot, Pounds.
½	.25	.244	.84	.298	1.70
¾	.30	.422	1 05	.314	2.44
1	.37	.587	1.315	.364	3.65
1¼	.52	.885	1.66	.388	5.20
1½	.65	1.088	1.90	.406	6 40
2	.95	1.491	2 375	.442	9.02
2½	1.37	1 755	2.875	.500	13.68
3	1.92	2.284	3.50	.608	18.56
3½	2 45	2 716	4 00	.642	22.75
4	2.85	3 136	4.50	.682	27.48
4½	3 30	3.564	5 00	.718	32.53
5	3.80	4.063	5 563	.75	38.12
6	5.30	4.875	6.625	.875	53.11
7	6.25	5 875	7 625	.875	62.38
8	7.20	6.875	8.625	.875	71.62

Extra Strong and Double Extra Strong pipe will be shipped in random lengths and plain ends unless otherwise ordered. An extra charge will be made for threads and couplings.

For cut lengths an extra charge will be made above random.

For galvanized or asphalted pipe an extra charge will be made above black.

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THE M. M. PATTISON SUPPLY CO. CLEVELAND

PIPE CUT TO ORDER.

Diagram Showing Screwed Valves and Fittings.

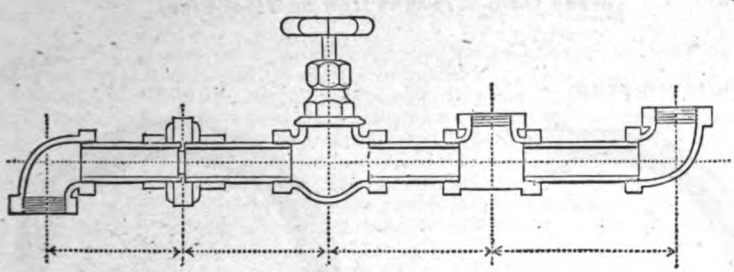

FIG. 2.

Diagram Showing Flanged Valves and Fittings.

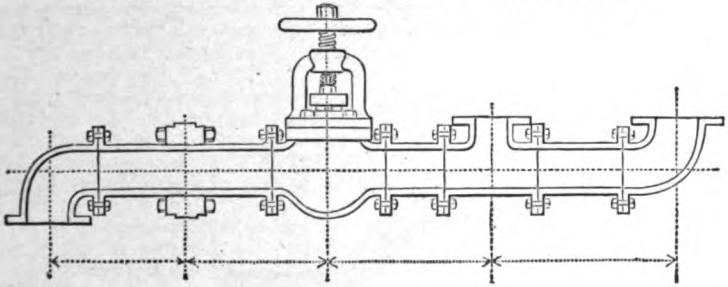

FIG. 3.

Pipe Cutting and Threading.

Size ..... inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Price ..... each	.06	.06	.06	.06	.08	.09	.10	.12	.15	.20	.25	.30	.35

Size ..... inches	$4\frac{1}{2}$	5	6	7	8	9	10	12	14	16	18	20	.....
Price ..... each	.50	.60	.75	.90	1.00	1.20	1.50	2.50	3.50	5.00	8.00	10.00	.....

Cutting and Threading Extra Strong Pipe, double above price; Double Extra Strong Pipe, three times above price.

Drilling and Tapping Pipe Headers.

Size of Header ..... inches	3 or 4.				5 or 6	
Size of Holes, Pipe Size ..... inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Price per Hole, Drilled and Tapped in Standard Pipe	.15	.15	.20	.25	.40	.45
Price per Hole, Drilled and Tapped in Extra Heavy Pipe	.18	.18	.25	.30	.45	.50

We are prepared to furnish Pipe and Fittings of all sizes cut and fit to order.

In laying out this work great care should be taken in making drawings. Measurements should be given center to center, as shown in above diagrams. It is also necessary to know the pressure it is required to stand.

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THE WM. PATTISON SUPPLY CO. CLEVELAND

PIPE BENDS.

Made from Wrought Iron or Steel Pipe.

QUARTER BEND

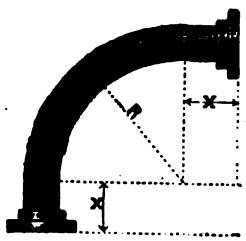

FIG. 4.

U. BEND.

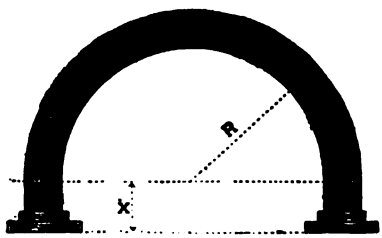

FIG. 5.

OFFSET BEND.

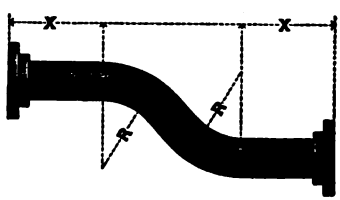

FIG. 6.

We are prepared to bend large pipe in any desired form within the following limits:

The radius of any bend should not be less than 5 diameters of the pipe and a larger radius is much preferable. The length "X" of straight pipe at each end of bend should be not less than as follows:

2½-inch Pipe X = 4 inches,	7 inch Pipe X = 8 inches,
3 -inch Pipe X = 4 inches,	8-inch Pipe X = 9 inches,
3½-inch Pipe X = 5 inches,	10-inch Pipe X = 12 inches,
4 -inch Pipe X = 5 inches,	12-inch Pipe X = 14 inches,
4½-inch Pipe X = 6 inches,	14-inch Pipe X = 16 inches,
5 -inch Pipe X = 6 inches,	15-inch Pipe X = 16 inches,
6 -inch Pipe X = 7 inches,	16-inch Pipe X = 20 inches,
	18-inch Pipe X = 22 inches.

These bends can be made of Extra Heavy, full weight, or Commercial weight Pipe, according to order.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

MAKING TIGHT SCREWED JOINTS FOR VERY HIGH PRESSURE.

BY R. T. CRANE, PREST. OF CRANE CO., CHICAGO.

I am satisfied that the trade generally does not understand the conditions that are necessary in order to make good work in this line.

If the ordinary steamfitter was called upon to put up piping that should stand 200 or 300 pounds of steam pressure, I think he would feel that he was taking a very large responsibility, and if he was called upon to do a job that should stand 1,000 pounds of air pressure he would not feel like taking this responsibility, and any one taking this responsibility would feel that he was obliged to resort to very extraordinary means in order to accomplish such a result, and if called upon to do such work with the ordinary material that is manufactured and supplied in the general market, he would say that it was an impossibility to do it.

We, however, not long ago had occasion to make joints tight in an 8-inch line so that they would stand 1,000 pounds of air pressure, and this we accomplished with the regular weight of line pipe and a coupling weighing about twenty-four pounds (which is the weight of a first-class line pipe coupling). The result of the experiment on thirty-two joints was that on the first test all were tight excepting one, and when this one joint was taken apart and again made up it also proved tight.

The secret of making such a joint is to overcome the friction in screwing the pipes together.

Friction is due to the large amount of surface, especially when the joints are coming up close to a bearing. Any grit or gummy material in the joint also tends very largely to produce friction. Friction produces expansion, and as the pipe is lighter than the coupling it expands more than the coupling, and then when both again become cool the pipe shrinks more than the coupling, thus causing a tendency to leak.

It is of course evident to any one who has given any thought whatever to the subject, that in order to make tight such joints as are mentioned above, the iron must be brought together as solidly as possible.

To get such results it is imperatively necessary that the iron should be absolutely clean, and then it is essential that the very best lubricant is used in order to reduce the friction.

Would also add, that we have discovered that, in order to produce good joints, it is not necessary that the threads should be absolutely perfect, nor is a taper essential (one of the couplings in the experiment herein referred to had no taper at all, and others very little taper), nor is a large amount of bearing necessary; in fact, we made one joint with a thread reduced to three-fourths of an inch in width, and this joint was tight at 1,500 pounds hydraulic pressure, which proves that the bearing was not essential to the making of a tight joint, and that the length of thread was not essential to prevent stripping of the thread from the coupling or the pipe.

This, I think, also proves another point that is not understood, and that is, that it is not essential, in order to do good work, to have especially long threads. In fact, we are satisfied that especially long threads are a detriment in making a good joint, for it stands to reason that such long threads tend to produce friction, which prevents the iron from coming up closely together, and the irregularity of the thread on the pipe tends to prevent the iron coming up in the closest contact. This will be better understood if we go to a great extreme in the matter. For instance, should we undertake to make a joint on eight-inch pipe, with a thread six inches long, the irregularities and friction would be so great that it would be impossible to get this thread contact.

We would say, in connection with the tests referred to herein, that we cut a dovetailed recess in the end of some of the couplings, and undertook to demonstrate whether defective joints could be tightened with lead caulked in such recess, and while we did not go far in the number of these experiments, we did find in two experiments (all that we made) that we could tighten a defective joint in this manner.

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DEFECTS IN THREADS ON WROUGHT IRON PIPE.

BY R. T. CRANE, PREST. OF CRANE CO., CHICAGO.

Undoubtedly the reader will be surprised when we say that no material of equal importance and in such universal use by men of general intelligence is so absolutely misunderstood as this. The amount of labor and material thrown away under a misapprehension of this question is enormous. It seems astonishing that at this late day there should be so much stupidity in this business. We have recently been studying and experimenting on this subject, and might say that we are astonished at our own stupidity up to this time in regard to it.

FLAT THREADS.

Some people discard material on account of the threads being a trifle flat. If one will only stop to reason out this matter, he will see how absurd this idea is. The entire thread on the pipe must be flat, in order to conceive of a leak being produced, and then the leak must traverse the circumference of the pipe as many times as there are threads in contact.

Now, it might be possible to have a leak under these circumstances if no cement were used; but with the use of any cement, or without cement, but with the smallest particle of perfect thread, this could not occur.

SMALL GROVES.

With regard to the small grooves that sometimes occur in threads, due to the weld not being perfectly brought up, this is another feature on account of which an immense amount of threading is rejected. It will be seen, upon a little reflection, that this groove could not possibly produce a leak unless it ran the entire length of the thread contact, and in depth went below the bottom of the thread.

BROKEN THREADS.

Another cause of rejection of material is where the threads have been broken off a little. Probably not so much as one per cent of the whole bearing of the thread is gone, yet some steamfitters will throw out this material. This is also an absurd theory, there being a large factor of strength in the length of all threads, as we know from tests that we made some time ago with an eight-inch coupling. We cut away all the thread excepting three-eighths of an inch, thereby leaving only about one-fifth of the ordinary bearing of that size thread, after which it was put under a pressure of one thousand pounds without a leak.

It is no doubt the common practice of steamfitters and engineers to reject threads where only one per cent are broken. The utter absurdity of this is shown by the above test, wherein about eighty per cent of the strength of the thread has been taken away.

For the purpose of illustrating these erroneous ideas, we took an eight-inch coupling and a piece of eight-inch pipe, and throughout the whole length of the bearing of the thread in the coupling and on the pipe we made grooves, such as are likely to occur when there is a defective weld. The grooves extended about half the depth of the thread, and were made an inch apart for the entire circumference of the pipe. Then we flattened all the threads both on the pipe and in the coupling, excepting a mere speck in each. Also, to offset the broken thread feature of this question, we cut three grooves in the pipe, one-fourth of an inch wide and the full depth of the thread.

This coupling and piece of pipe were then screwed together and tested to 500 pounds of air, at which pressure the joint was tight. The amount of defect in the threads used in this test was at least 100 per cent greater than that for which some steamfitters or engineers will reject material.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

LAP WELDED CASING.

COUPLING JOINT.

FIG. 7.

INSERTED JOINT.

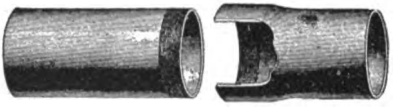

FIG. 8.

Nominal Inside Diameter, Inches.	Price, Black, per Foot.	Actual Outside Diameter, Inches.	Nominal Weight per Foot, Pounds.	No. Threads per Inch of Screw.
2	.23	2 1/4	2.22	14
2 1/4	.29	2 1/2	2.82	14
2 1/2	.32	2 3/4	3.13	14
2 3/4	.35	3	3.45	14
3	.41	3 1/4	4.10	14
3 1/4	.45	3 1/2	4.45	14
3 1/2	.48	3 3/4	4.78	14
3 3/4	.56	4	5.56	14
4	.60	4 1/4	6.00	14
4 1/4	.64	4 1/2	6.36	14
4 1/4	1.00	4 1/2	9.38	14
4 1/2	.68	4 3/4	6.73	14
4 1/2	1.00	4 3/4	9.39	14
4 3/4	.78	5	7.80	14
5	.82	5 1/4	8.20	14
5	1.00	5 1/4	9.86	14
5	1.30	5 1/4	12.80	11 1/2
5	1.50	5 1/4	15.88	11 1/2
5 3/16	.87	5 1/2	8.62	14
5 3/16	1.30	5 1/2	12.49	11 1/2
5 5/16	1.05	6	10.46	14
5 5/16	1.20	6	12.04	11 1/2
5 5/16	1.40	6	14.20	11 1/2
5 5/16	1.60	6	16.70	11 1/2
6 1/16	1.16	6 5/16	11.58	14
6 1/16	1.35	6 5/16	13.32	14 and 11 1/2
6 1/16	1.70	6 5/16	17.02	11 1/2
6 5/16	1.24	7	12.34	14
6 5/16	1.75	7	17.51	11 1/2 and 10
7 1/16	1.36	7 5/16	13.55	14
7 5/16	1.55	8	15.41	11 1/2
7 5/16	2.10	8	20.17	11 1/2
8 1/16	1.61	8 5/16	16.07	11 1/2
8 1/16	2.00	8 5/16	20.10	11 1/2
8 1/16	2.40	8 5/16	24.38	11 1/2 and 8
8 5/16	1.76	9	17.60	11 1/2
9 5/16	2.20	10	21.90	11 1/2
10 5/16	2.68	11	26.72	11 1/2
11 5/16	3.05	12	30.35	11 1/2
12 1/16	3.38	13	33.78	11 1/2

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WROUGHT IRON COUPLINGS.

For Well Casing with Patent Protecting Sleeve.

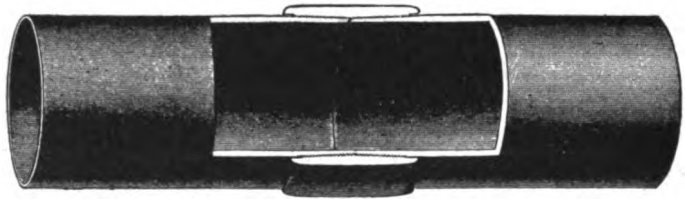

FIG. 9.

Size, Inches	Price, Black, Each.	Price, Galvanized, Each.	Outside Diameter, Inches.	Length, Inches.	Weight Each, Pounds.	Number of Threads per Inch of Screw
1¼	.12	.18	2.06	2.00	.68	18
2	.16	.23	2.63	2.37	1.02	14
2¼	.20	.28	2.88	2.62	1.24	14
2½	.25	.35	3.23	3.00	1.90	14
2¾	.30	.42	3.42	3.00	2.20	14
3	.35	.50	3.77	3.50	2.70	14
3¼	.40	.57	4.00	3.62	3.17	14
3½	.46	.65	4.27	3.62	3.44	14
3¾	.52	.73	4.59	3.62	3.94	14
4	.60	.85	4.81	3.62	4.15	14
4¼	.68	1.00	5.06	3.62	4.20	14
4½	.74	1.05	5.50	3.62	4.80	14
4¾	·80	1.15	5.56	3.62	4.90	14
5	.90	1.30	5.93	3 62	5.74	14
5	.90	1.30	5.93	3.62	5.74	11½
5 3/16	1.00	1.40	6.18	3.62	6 04	14
5 3/16	1.00	1.40	6.18	3.62	6 04	11½
5⅜	1.20	1.70	6.62	3 62	6 45	14
5⅜	1.20	1.70	6.62	3.62	6 45	11½
6¼	1.35	1.90	7.28	3.62	7.22	14
6¼	1.35	1.90	7.28	3.62	7.22	11½
6⅝	1.50	2.15	7.69	3.75	8.35	14
6⅝	1.50	2.15	7.69	3 75	8.35	11½
6⅝	1.50	2.15	7.69	3.75	8.35	10
7⅝	1.75	2.50	8.70	3.75	10.00	11½
8¼	2.25	3.25	9.37	3.75	11.52	11½
8¼	2.25	3 25	9.37	3.75	11.52	8
8⅝	2.85	.....	.....	.....	.....	11½
9⅝	3.50	.....	.....	.....	.....	11½
10⅝	4.50	.....	.....	.....	.....	11½
11⅝	5.15	.....	.....	.....	.....	11½
12½	6.75	.....	.....	.....	.....	11½
13½	7.60	.....	.....	.....	.....	11½
14½	.....	.....	.....	.....	.....	11½
15½	.....	.....	.....	.....	.....	11½

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CAST IRON CASING FITTINGS.

ELBOW.

FIG. 10.

TEE

FIG. 11.

CROSS.

FIG. 12.

Size.....inches	2, 2¼, 2½, 2¾, 3	3¼	3½	3¾	4	4¼	4½	4¾
Price, Elbows .....each	1.10	1.35	1.80	1.80	2.50	2.50	3.00	3.00
Price, Elbows, Reducing, each	1.40	1.75	2.25	2.25	3.00	3.00	3.75	3.75
Price, Elbows, 45°.....each	1.60	2.00	2.70	2.70	3 75	3.75	4.00	4.00
Price, Tees.....each	1.50	2.00	2.50	2.50	3.50	3.50	4.00	4.25
Price, Tees, Reducing.....each	1.85	2.50	3.00	3.00	4.35	4.35	5.00	5.25
Price, Crosses.....each	2.20	2.70	3.50	3.50	5.00	5.00	5.70	6.00
Price, Crosses, Reducing, each	2.75	3.30	4.35	4.35	6.25	6.25	7.00	7.50
Price, Plugs.....each	.50	.75	.85	.85	1.35	1.35	1.75	1.75
Price, Bushings.....each	.60	.80	1.00	1.00	1.50	1.50	1.85	1.85
Price, Flange Unions.....each	2.25	2.75	3.15	3.15	4.50	4.50	5.00	5.00
Price, Lock Nuts .....each	.50	.70	.95	.95	1.25	1.25	1.35	1.35
Price, Return Bends, Close...each	3.00	4.00	5.00	5.00	6 00	6.50	.....	.....
Price, Return Bends, Open...each	3.75	4.50	5.75	5.75	8.00	8.00	.....	.....
Price, Reducers.....each	1.20	1.50	2.00	2.00	2.75	2.75	3.00	3.00
Price, Caps.. .....each	.80	1.10	1.30	1.30	1.60	1.60	2.00	2.00
Price, Y's .....each	3.25	4.50	6.00	6.00	8.00	8.00	9.00	9.00

Size.....inches	5	5 3/16	5⅝	6¼	6⅝	7⅝	8¼, 8⅝	9⅝
Price, Elbows .....each	3.50	4.00	4.00	7.00	7.00	10.00	13.00	20.00
Price, Elbows, Reducing..each	4.35	5.00	5.00	8.75	8.75	12.50	16.00	25.00
Price, Elbows 45°.....each	4.50	5.50	5.50	9.00	9.00	13.00	16.00	25.00
Price, Tees.....each	5.00	5.50	5.50	10.00	10.00	15.00	20.00	25.00
Price, Tees, Reducing.....each	6.25	6.75	6.75	12.50	12.50	18.75	25.00	30.00
Price, Crosses.....each	7.00	7.80	7.80	14.00	14.00	20.00	26.00	40.00
Price, Crosses, Reducing, each	8.75	9.70	9.70	17.50	17.50	25.00	32.00	50.00
Price, Plugs.....each	2.00	2.40	2.40	3.75	3.75	5.50	6.50	7.50
Price, Bushings ..... each	2.00	2.50	2.50	3.75	3.75	5.50	6.50	7.50
Price, Flange Unions.....each	5.50	6.50	6.50	8.00	8.00	10.00	12.00	15.00
Price, Lock Nuts.....each	1.50	1.90	1.90	2.50	2.50	3.50	4.00	4.50
Price, Reducers.....each	3.50	4.00	4.00	8.00	8.00	10.00	12.00	15.00
Price, Caps.....each	2.15	2.35	2.35	4.00	4.00	4.35	6.00	7.25
Price, Y's .....each	10.00	12.00	12.00	17.00	17.00	25.00	.....	.....

Casing Fittings, with one or more openings Pipe Threads, add 25 per cent.

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CAST IRON CASING FITTINGS.

One and Two Hole Bushings and Caps.

BUSHING WITH TWO HOLES.

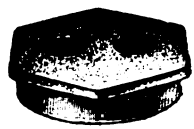

FIG. 13.

CAP WITH TWO HOLES

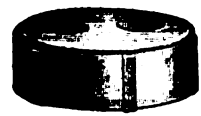

FIG. 14

CAP WITH ONE HOLE.

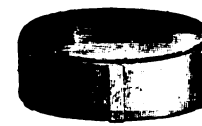

FIG. 15.

Tapped for Two Inch Pipe.

Size .....inches	5	5 1⅜	5⅝	6¼	6⅝	7⅝	8¼	8⅝	9⅝
Price, Bushings or Caps.....each	3.25	3.50	3.75	5.75	6.00	6.50	8.50	9.00	10.50

Bushings and Caps tapped for three inch Pipe to order.

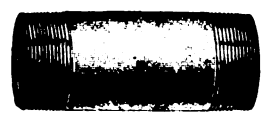

FIG. 16.

Wrought Iron Casing Nipples.

Size ..... inches	3	3¼	3½	3¾	4	4¼	4½	4¾	5
Price, Close or Short...each	1 90	1.95	2 30	2.35	2.35	2.40	2.40	2.45	2.55
Price, Long .....each	2.00	2.10	2.45	2.50	2.50	2.60	2.60	2.70	2.85
Price, 3 in. Long.....each	2.05	.....	.....	.....	.....	.....	.....	.....	.....
Price, 7 in. Long.....each	2.10	2.15	2.50	2.60	2.60	2.70	2.70	2.80	2.95
Price, 8 in. Long.....each	2.15	2.20	2.60	2.65	2.75	2.80	2.80	2 95	3.10
Price, 9 in. Long.....each	2.25	2.30	2.65	2.75	2.80	2.90	2.90	3.05	3 25
Price, 10 in. Long.....each	2.30	2.35	2.70	2.85	2.90	3.00	3.00	3.15	3.40
Price, 11 in. Long.....each	2.35	2.40	2.80	2.90	3.00	3.05	3.10	3.25	3.55
Price, 12 in. Long.....each	2.40	2.50	2.85	3.00	3.10	3.15	3.20	3.35	3.65

Size.....inches	5 1⅜	5⅝	6¼	6⅝	7⅝	8¼	8⅝	9⅝	10⅝
Price, Close or Short...each	3.00	3.25	3.45	4.50	4.50	5.25	6.45	7.10	.....
Price, Long.....each	3.30	3.50	.....	.....	.....	.....	.....	.....	.....
Price, 6 in. Long.....each	.....	.....	3.80	4 80	4.75	5.45	.....	.....	.....
Price, 7 in. Long.....each	3.50	3.65	4.00	5 05	5.00	5.70	6.70	7.45	8.15
Price, 8 in. Long.....each	3.65	3.80	4.20	5.30	5 25	5.95	7.00	7.80	8.60
Price, 9 in. Long.....each	3.80	3.95	4.35	5.55	5.45	6 20	7.30	8.15	8 95
Price, 10 in. Long.....each	4.00	4.10	4 55	5.80	5.70	6.45	7.60	8.50	9.50
Price, 11 in. Long.....each	4.15	4.25	4.75	6.05	5.95	6.70	7.90	8.85	9.85
Price, 12 in. Long.....each	4.30	4.40	4.95	6 30	6.20	6.95	8.20	9.20	10.20

Casing substitute Nipples, same list as above.

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STANDARD LAP WELDED BOILER TUBES.

Outside Diameter, Inches.	Price, per Foot.	Thickness, Inches.	Thickness, Nearest B. W. G.	Nominal Weight, per Foot.
1	.30	.095	13	.90
1¼	.28	.095	13	1.15
1½	.27	.095	13	1.40
1¾	.22	.095	13	1.66
2	.20	.095	13	1.91
2¼	.24	.095	13	2.16
2½	.28	.109	12	2.75
2¾	.34	.109	12	3.04
3	.35	.109	12	3.33
3¼	.40	.120	11	3.96
3½	.44	.120	11	4.28
3¾	.50	.120	11	4.60
4	.55	.134	10	5.47
4½	.62	.134	10	6.17
5	.75	.148	9	7.58
6	1.00	.165	8	10.16
7	1.20	.165	8	11.90
8	1.50	.165	8	13.65
9	1.70	.180	7	16.76
10	2.10	.203	6	21.00
11	2.50	.220	5	25.00
12	2.90	.229	4½	28.50
13	3.20	.238	4	32.06
14	3.65	.248	3½	36.00
15	4.10	.259	3	40.60
16	4.60	.270	2½	45.20

Tubes in excess of 22 feet in length, 10 per cent. will be added to net of invoice.

EXTRA WIRE GAUGE BOILER TUBES.

Extra wire gauge boiler tubes, away from standard not exceeding four wire gauges, add one cent for each inch in diameter to the net price per foot for each additional number. Beyond four numbers, price is per pound.

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LINE PIPE.

For Oil, Gas and High Pressure Mains.

Size, Inches.	Price, per Foot.	Actual Outside Diameter, Inches.	Nominal Weight per Foot, Pounds.	Number of Threads, per Inch of Screw.
2	On Application.	2.37	3.61	11½
2½		2.87	5.74	8
3		3.50	7.54	8
3½		4.00	9.00	8
4		4.50	10.66	8
4½		5.00	12.34	8
5		5.56	14.50	8
6		6.62	18.76	8
7		7.62	23.27	8
8		8.62	28.18	8
9		9.68	33.70	8
10		10.75	40.06	8
12		12.75	49.00	8

LARGE OUTSIDE DIAMETER PIPE.

Plain Ends.

Size, Outside Diameter, Inches.	Price, ¼ inch Thick, per Foot.	Price, 5-16 inch Thick, per Foot.	Price, ⅜ inch Thick, per Foot.	Price, 7-16 inch Thick, per Foot.	Price, ½ inch Thick, per Foot.
14	3.85	4.80	5.75	6.65	7.60
15	4.15	5.15	6.15	7.15	8.15
16	4.40	5.50	6.60	7.65	8.70
17	4.70	5.85	7.00	8.15	9.25
18	4.95	6.20	7.40	8.60	9.80
20	.....	6.90	8.25	9.60	10.95
21	.....	7.25	8.65	10.10	11.50
22	.....	7.60	9.10	10.60	12.10
24	.....	.....	9.95	11.60	13.15
26	.....	.....	11.30	13.15	14.95
28	.....	.....	12.15	14.15	16.15
30	.....	.....	.....	15.20	17.65

This pipe will be shipped in random lengths, plain ends, unless otherwise ordered. An extra charge for threaded ends will be made.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

WROUGHT IRON COUPLINGS.

For Line Pipe and Tubing with Patent Protecting Sleeve.

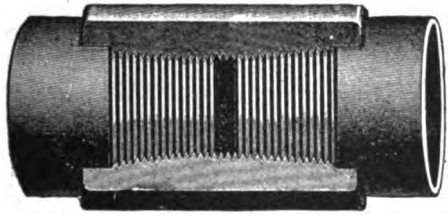

FIG. 17.

Size, Inches.	Price, Right Hand Each.	Price, Right and Left Hand, Each.	Outside Diameter, Inches.	Length, Inches.	Weight, Each, Pounds.	Number of Threads, per Inch of Screw.
⅛	.10	.15	1.150	2 000	.300	14
¼	.12	.18	1.410	2.125	.420	14
1	.15	.23	1.720	2.375	.640	11½
1¼	.25	.38	2.150	3.250	1.340	11½
1½	.30	.45	2.375	3.250	1.387	11½
2	.40	.70	2.937	3.750	2.362	11½
2½	.60	1.20	3.500	3.750	3.250	8
2½	.60	1.20	3.500	3.750	3.250	11½
3	.80	1.60	4.062	3.750	3.550	8
3	.80	1.60	4.062	3.750	3.550	11½
3½	1.30	2.60	4.687	3.870	5.050	8
3½	1.30	2.60	4.687	3.870	5.050	11½
4	1.50	3.00	5.187	4.000	6.300	8
4	1.50	.....	5.187	4.000	6.300	10
4½	2 00	.....	5.750	4.125	7.450	8
5	2.40	.....	6.343	4.625	9.600	8
6	2.80	.....	7.343	5.125	12.150	8
7	3.85	.....	8.437	6.000	17.450	8
8	4.00	.....	9.375	6.125	19.600	8
9	5.00	.....	10.500	6.125	24.570	8
10	6.00	.....	11.680	6.125	30.900	8
12	8.00	.....	13.930	6.125	43 200	8

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WROUGHT IRON COUPLINGS.

For Drive Pipe with Patent Protecting Sleeve.

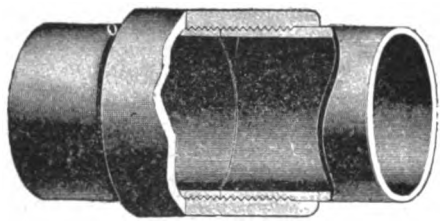

FIG. 18.

Size, Inches.	Price, Each.	Outside Diameter, Inches.	Weight, Each, Pounds.	Number of Threads, per Inch of Screw.
4	1.50	5.1250	6.062	8
5	2.40	6.2500	8.812	8
6	2.80	7.3750	11.562	8
7	3.85	8 3750	16.500	8
8	4.00	9.6250	25.500	8
9	5.00	10.4375	21.500	8
10	6.00	11.5000	22.000	8
11	.....	12.9062	26 500	8
12	8.00	13.7500	35.500	8
13	.....	15.4375	49.000	8
14	.....	16.3125	55.000	8
15	.....	17.5000	72.500	8

Drive Pipe Shoes.

Size.....Inches	6	8	10	12
Price, Screwed on Separate.....each	12.50	13.50	30.00	36.00
Price, Screwed on.....each	13.00	14.00	31.50	38.00
Price, Shrunk on.....each	17.50	18.00	34.00	40.00

Drive Pipe Heads.

Size.....inches	6	8	10	12
Price.....each	11.00	16.00	21.00	30.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

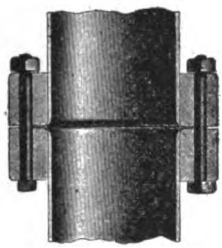

FIG. 19.

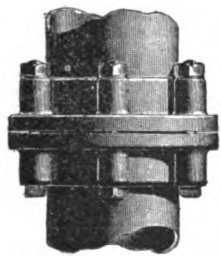

FIG. 20.

We can furnish all sizes, from 6 inch to 30 inch outside diameter, with plain square ends, cut to specified lengths not exceeding 15 feet. Tested to a pressure of 500 pounds per square inch. Fitted with cast iron flanges, shrunk on, expanded and beaded, complete with bolts and gaskets. Faces of flanges may be straight or male and female.

Prices on application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

WOOD PIPE.

Round and Square.

ROUND.

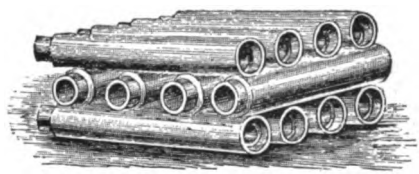

FIG. 21.

SQUARE.

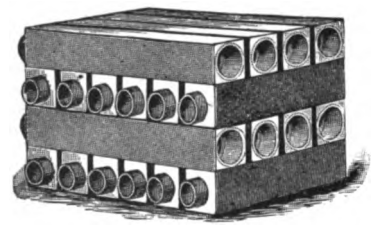

FIG. 22.

Round Wood Pipe, Coated.

Size of Bore, Inches.	Price, per Foot.	Outside Diameter, Inches.	Tested for Pressure, Pounds.	Weight per Foot, Pounds.	Approximate Number of Feet to Car Load.
1	.05	3	33	1½	20000
1¼	.08	3½	20	2	15000
1½	.08	3½	15	2	15000
2	.12	4½	15	4	9500
3	.16	6	15	6½	5300
3	.19	7	22	7½	3700
3	.23	8	28	14	3000
4	.19	7	15	7½	3700
4	.23	8	22	12	3000
5	.35	9	13	15	2250
6	.45	10	13	18	1800

Square Wood Pipe, Plain.

Size of Bore, Inches.	Price, per Foot.	Outside of Timber, Inches.	Tested for Pressure, Pounds.	Weight per Foot, Pounds.	Approximate Number of Feet to Car Load.
1¼	.05	3½x3½	15	2	15000
1½	.05	3½x3½	13	2	15000
2	.10	4½x4½	11	4	9500
3	.14	6x6	9	6½	5300
3	.16	7x7	17	7½	3700
3	.20	8x8	22	14	3000
4	.16	7x7	13	7½	3700
4	.20	8x8	17	12	3000
4	.26	9x9	26	18	2250
4	.38	10x10	30	24	1250
5	.26	9x9	17	15	2250
5	.38	10x10	17	20	1500
6	.38	10x10	13	18	1800

Furnished in lengths from 4 to 8 feet long.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

WOOD PIPE.

Strenghtened and Stave.

STRENGTHENED WOOD PIPE.

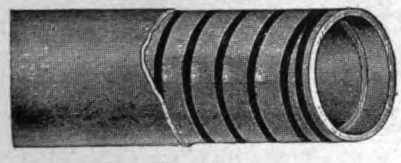

FIG. 23.

WOOD STAVE PIPE.

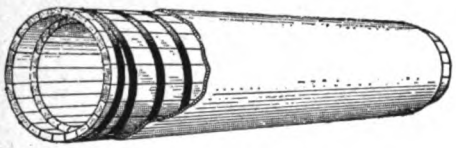

FIG. 24.

Strengthened Wood Pipe, Coated.

Size of Bore, Inches.	Price per Foot, Tested for 40 Pounds Pressure.	Price per Foot, Tested for 80 Pounds Pressure.	Price per Foot, Tested for 160 Pounds Pressure.	Weight per Foot, Pounds.
1¼	.12	.13	.18	2
1½	.12	.13	.18	2
2	.14	.15	.19	4
3	.20	.23	.30	6½
4	.29	.32	.42	7½
5	.38	.42	.55	15
6	.48	.54	.68	18

Wood Stave Pipe, Coated.

Size of Bore, Inches.	Price per Foot, Tested for 40 Pounds Pressure.	Price per Foot, Tested for 80 Pounds Pressure.	Price per Foot, Tested for 160 Pounds Pressure.	Weight per Foot, Pounds.
6	.48	.54	.68	12
7	.58	.64	.82	13
8	.68	.74	.96	14
10	.90	.99	1.34	16
12	1.20	1.32	1.78	18
14	1.50	1.68	2.22	20
16	1.92	2 16	2.70	23

Furnished in lengths from 4 to 8 feet long.

Special Wood Fittings. Prices on Application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SPIRAL RIVETED PIPE.

Plain or Flanged Ends.

FIG. 25.

Plain Ends, Black, Asphalted or Galvanized.

Diameter, Inches.	No. 22 B. W. G.				No. 20, B. W. G.					No. 18. B. W. G.				
	Price, Black, per foot.	Price, Asphalted, per foot.	Price, Galvanized, per foot.	Weight per 100 feet, pounds.	Price, Black, per foot.	Price, Asphalted, per foot.	Price, Galvanized, per foot.	Weight per 100 feet, pounds.	Approx. Bursting Pressure in lbs. per sq. in.	Price, Black, per foot.	Price, Asphalted, per foot.	Price, Galvanized, per foot.	Weight per 100 feet, pounds.	Approx. Bursting Pressure in lbs. per sq. in.
3	.24	.27	.32	130	.27	.30	.38	150	900	.34	37	.46	185	1300
4	.30	.34	.43	160	.35	.39	.48	200	700	.42	46	.58	245	1000
5	.37	.42	.53	200	.40	.45	.60	250	550	.50	55	.70	300	800
6	.40	.46	.60	230	.46	.52	.68	300	450	.57	.63	.85	360	700
7	.45	.52	.65	260	.51	.58	.75	325	400	.63	.70	.90	400	600
8	.53	.61	.75	300	.58	.66	.85	360	350	.73	.81	1.05	460	500
9	.60	.69	.90	340	.66	.75	.97	410	325	.82	.91	1.18	525	450
10	.65	.75	1.00	380	.72	.82	1.05	500	275	.90	1.00	1.30	575	400
12	.82	.94	1.25	490	.90	1.02	1.35	600	225	1.15	1.27	1.65	750	330
14	1.00	1.14	1.45	575	1.10	1.24	1.60	700	200	1.35	1.49	1.95	900	280
16	.....	.....	.....	.....	1.30	1.46	1.85	800	100	1.60	1.76	2.25	1000	250
18	.....	.....	.....	.....	1.40	1.58	2.05	900	150	1.75	1.93	2.55	1125	220
20	.....	.....	.....	.....	1.60	1.80	2.30	960	140	2.00	2.20	2.90	1250	200
24	....	.....	.....	.....	1.95	2.19	2.85	1150	110	2.40	2.64	3.35	1460	160

	No. 16, B. W. G.				No. 14, B. W. G.					No. 12, B. W. G.				
4	.50	.54	.70	320	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	.60	.65	.85	415	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	.70	.76	1.00	500	.89	95	1.15	610	1100	1.25	1.31	1.90	800	1330
7	.80	.87	1.10	550	1.02	1.09	1.35	700	950	1.40	1.47	2.10	910	1140
8	.93	1.01	1.28	650	1 15	1.23	1.50	825	825	1.55	1.63	2.30	1040	1000
9	1.08	1.17	1.47	750	1.32	1.41	1.70	925	750	1.70	1.79	2.50	1180	880
10	1.15	1.25	1.55	800	1.40	1.50	1.80	1025	650	1.90	2.00	2.75	1300	800
12	1.45	1.57	2.05	1025	1.80	1.92	2.35	1325	550	2.50	2.62	3.25	1700	660
14	1.70	1.84	2.40	1200	2.10	2 24	2 70	1560	470	2.90	3.04	3.75	2010	570
16	2.00	2.16	2.75	1375	2.40	2.56	3 15	1790	400	3.25	3.41	4.25	2310	500
18	2.20	2.38	3.10	1550	2.75	2 93	3.60	2000	370	3.60	3.78	4.70	2570	440
20	2.45	2.65	3.40	1675	3.10	3.30	4.00	2200	325	4.00	4.20	5.25	2830	400
24	3.00	3.24	4.30	2000	3.70	3.94	4.85	2620	275	4.70	4.94	6.25	3380	335

Flanged Ends, Double Galvanized or Asphalted.

Diameter.... inches	3	4	5	6	7	8	9	10	12	14	16	18	20	24
B. W. G.....number	20	20	20	18	18	18	18	16	16	14	14	14	14	12
Apprx. Wt. per ft. lbs	2¼	3	4	5	6	7	8	11	14	20	24	29	34	50
Price, Dbl. Galv. pr ft	.50	.70	1.00	1.20	1.40	1.70	2.00	2.60	3.15	4.00	5.00	6.00	7.00	10.50
Price, Asphalt. pr ft	.35	.45	.55	.75	.80	.95	1.10	1.45	1.80	2.50	3.05	3.50	3.90	6.00

Weights are approximate for black pipe only; galvanized and asphalted pipe is from 20 to 30 per cent. heavier.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

FLANGED FITTINGS FOR SPIRAL RIVETED PIPE.

Black.

ELBOW.

FIG. 26.

TEE.

FIG. 27.

Size, Inches.	Price, Elbows, Each.	Price, 45° Elbows, Each.	Price, Return Bends, Each.	Price, Tees, Each.	Price, Reducing Tees, Each.	Price, Y-Branches, Each.
3	1.25	1.25	2.50	1.95	1.95	.....
4	1.50	1.50	3 00	2.20	2.20	.....
5	2.00	2.00	4 00	3 10	3.10	.....
6	2.90	2 90	5.80	3 90	3 90	....
7	3.50	3.50	7.00	5.00	5.00	.....
8	4.50	4.50	9.00	6 60	6 60	.....
9	6.20	6.20	12.40	9.25	9.25	.....
10	6.80	6.80	13.60	11.50	11.50	.....
12	10 50	10.50	21.00	15.00	15 00	.....
14	13.50	13.50	27.00	18.60	18.60	....
16	17.00	17.00	34.00	25 00	25.00	.....
18	20.00	20.00	40 00	29.00	29.00	.....
20	*23.00	*23.00	*46.00	*34.00	*34.00	.....
24	*30.00	*30.00	*60.00	*45 00	*45.00	.....

Size, Inches.	Price, Crosses, Each.	Price, Reducers, Each.	Price, Flanges, Each.	Price, Disks, Each.	Price, Bolts, Each.	Price, Gaskets, Each.
3	3.00	.....	.24	.28	.02½	.09
4	3.70	* 2 00	.32	.40	.02½	.10
5	4 80	* 2 40	.40	.48	.02½	.12
6	5.70	* 3.25	.48	.72	.03	.16
7	7.70	* 4.00	.64	.96	.03	.18
8	9.80	* 4.75	.72	1.12	.03	.23
9	13.00	* 5.50	.96	1.44	.03	.31
10	16.50	* 7.00	1.12	1.62	.03	.40
12	21.00	* 9.00	1.28	2.40	.03	.50
14	27.00	*11.00	1.60	3.36	.03½	.63
16	34.50	*14.20	2.72	4.16	.03½	.90
18	39.00	*17.40	3.12	5.60	.04	1.08
20	*45.00	*19.60	3.44	7.20	.04	1.25
24	*58.00	*25.00	6.00	10.40	.04	2.00

*All fittings marked thus are double galvanized, riveted sheet iron; all others are cast iron. Fittings of any design made to order.

Connection with wrought iron pipe readily made by means of threaded disks.

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FLANGED FITTINGS FOR SPIRAL RIVITED PIPE.

Galvanized

CROSS.

FIG. 28.

REDUCER.

FIG. 29.

Size, Inches.	Price, Elbows, Each.	Price, 45° Elbows, Each.	Price, Return Bends, Each.	Price, Tees, Each.	Price, Reducing Tees, Each.	Price, Y-Branches, Each.
3	1.60	1.60	3 20	2.75	2.75	.....
4	2.10	2.10	4.20	3.25	3.25	.....
5	2.85	2.85	5.70	4.40	4.40	.....
6	4.10	4.10	8.20	5.70	5.70	.....
7	5.10	5.10	10.20	7.30	7.30	.....
8	6.70	6.70	13.40	9.80	9.80	.....
9	9.00	9.00	18.00	13.80	13.80	.....
10	10.00	10.00	20.00	17.60	17.60	.....
12	15 80	15.80	31.60	22.50	22.50	.....
14	22.30	22.30	44.60	30.50	30.50	.....
16	30.00	30.00	60.00	44.00	44 00	.....
18	34 00	34.00	68.00	50.00	50.00	....
20	*38.50	*38.50	*77.00	*56.00	*56.00	.....
24	*45 00	*45.00	*90.00	*70.00	*70.00	.....

Size, Inches.	Price, Crosses, Each.	Price, Reducers, Each.	Price, Flanges, Each.	Price, Disks, Each.	Price, Bolts, Each.	Price, Gaskets, Each.
3	4.15	.....	.39	.45	.04	.09
4	5.30	* 3.00	.52	.65	.04	.10
5	6.70	* 3.50	.65	.78	.04	.12
6	8.00	* 4.75	.78	1.17	.04½	.16
7	11.00	* 5.50	1.04	1.56	.04½	.18
8	14.25	* 6.50	1.17	1.82	.04½	.23
9	18.80	* 8.00	1.56	2.34	.04½	.31
10	24.50	*10.25	1.82	2.47	.04½	.40
12	30.00	*13.00	2.08	3.90	.04½	.50
14	38.00	*16.50	2.60	5.46	.05	.63
16	53.00	*21.30	4.42	6.76	.05	.90
18	59.00	*26.00	5.07	9.10	.05½	1.08
20	*67.00	*29.40	5.59	11.70	.05½	1.25
24	*87.00	*37.00	9.75	16.90	.05½	2.00

*All fittings marked thus are double-galvanized, riveted sheet iron; all others are cast iron.

Fittings of any design made to order.

Connection with wrought iron pipe readily made by means of threaded disks.

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CAST IRON GAS AND WATER PIPE.

FIG. 30.

GAS PIPE.				WATER PIPE.			
Size, Inches.	Thickness, Inches.	Weight, per Foot, Pounds.	Weight, per Length, Pounds.	Size, Inches.	Thichness, Inches.	Weight, per Foot, Pounds.	Weight, per Length, Pounds.
2	5/16	6	48	2	5/16	7	63
3	5/16	12½	150	3	3/8	15	180
4	3/8	17	204	4	1/2	22	264
5	7/16	24	288	5	1/2	27	324
6	7/16	30	360	6	1/2	33	396
8	7/16	40	480	8	1/2	45	540
10	7/16	50	600	10	9/16	60	720
12	1/2	70	840	12	5/8	80	960
14	9/16	84	1000	14	3/4	117	1400
16	9/16	100	1200	16	3/4	125	1500
18	11/16	134	1600	18	7/8	167	2000
20	11/16	150	1800	20	15/16	200	2400
24	3/4	184	2200	24	1	250	3000
				30	1 1/16	350	4200
				36	1 3/8	475	5700
				48	1 1/2	775	9300
				60	2	1330	15960

All lengths are 12 feet long, excepting 2-inch sizes, which are as follows: 2-inch Gas, 8 feet, 2-inch Water, 9 feet.

Above weights are usually required, but may be varied to suit customer.

Table Showing Weights of Lead and Hemp Used in Laying Pipe.

GAS PIPE.					WATER PIPE.				
Size, Inches.	Depth of Lead. 2 Inches.		1½ Inches		Size, Inches.	Depth of Lead. 2 Inches.		1½ Inches.	
	Lead, Lbs.	Hemp, Lbs.	Lead, Lbs.	Hemp, Lbs.		Lead, Lbs.	Hemp, Lbs.	Lead, Lbs.	Hemp, Lbs.
2	1.48	.135	.....	.....	2	1.53	.140	.....	.....
3	4.75	.086	3.53	.144	3	4.85	.089	3.75	.148
4	6.02	.238	4.81	.313	4	6.32	.251	5.01	.329
5	7.14	.267	5.71	.352	5	7.50	.277	5.95	.366
6	8.53	.316	6.77	.417	6	8.68	.321	6.88	.424
8	10.88	.465	8.65	.597	8	11.03	.471	8.75	.605
10	13.24	.566	10.50	.726	10	13.03	.578	10.73	.742
12	15.76	.578	12.50	.770	12	15.88	.582	12.60	.775
14	18.24	.668	14.46	.891	14	18.67	.684	14.81	.912
16	20.74	.633	16.44	.886	16	21.03	.642	16.68	.899
18	23.39	.856	18.55	1.142	18	23.68	.867	18.78	1.157
20	25.74	.941	20.41	1.254	20	26.33	.966	20.88	1.288
24	30.45	1.115	24.14	1.486	24	31.04	1.137	24.61	1.516
					30	38.17	1.631	30.37	2.175

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CAST IRON CULVERT PIPE.

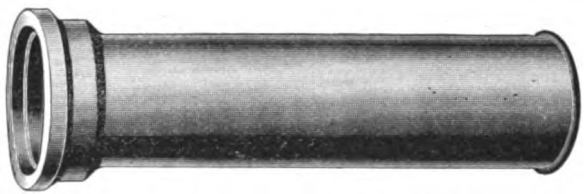

FIG. 31.

Size, Inches.	Thickness, Inches.	Light Weight per Ft. Pounds	Thickness, Inches.	Medium Weight, per Foot, Pounds.	Thickness, Inches.	Standard Weight, per Foot, Pounds.	Thickness, Inches.	Heavy Weight, per Foot, Pounds.
4	7/16	20	1/2	22	9/16	24	5/8	28
6	7/16	30	1/2	33	9/16	36	5/8	40
8	7/16	40	1/2	42	9/16	47	5/8	52
10	1/2	55	9/16	60	5/8	67	11/16	82
12	1/2	70	9/16	75	5/8	82	11/16	90
16	1/2	104	5/8	125	3/4	140	1	170
20	1/2	135	5/8	160	7/8	195	1	215
24	1/2	200	13/16	215	7/8	230	1 1/8	250
30	1/2	250	7/8	275	1	310	1 1/8	350
36	5/8	350	1	385	1 1/8	435	1 1/4	475
42	1	450	1 1/8	500	1 1/4	550	1 3/8	600
48	1 1/8	600	1 1/4	665	1 1/2	775	1 5/8	865

CAST IRON FLANGED PIPE.

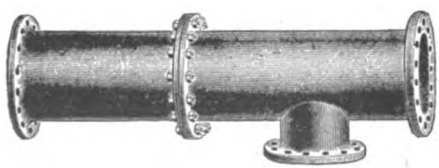

FIG. 32

Sizes ranging from 4 to 36 inch.
Prices on Application.

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SPECIALS FOR CAST IRON GAS AND WATER PIPE.

Quarter Bends.

Size .....inches	3	4	6	8	10	12	14	16	18	20	24	30
Weight .....pounds	40	60	100	160	240	300	400	700	800	1000	1500	2500

Eighth Bends.

Size .....inches	3	4	6	8	10	12	14	16	18	20	24	30
Weight.. .....pounds	45	55	85	145	190	300	430	485	820	1200	1450	2200

Sixteenth Bends.

Size ....inches	3	4	6	8	10	12	14	16	18	20	24	30
Weight .....pounds	30	60	95	155	210	265	400	450	515	715	1300	2100

Tees

Size. Inches.	Weight. Pounds	Size. Inches.	Weight. Pounds.	Size. Inches.	Wght. Lbs.	Size. Inches.	Wght. Lbs.
3x3x3	80	8x 8x 4	240	12x12x10	385	16x16x 5	736
4x4x4	120	8x 8x 3	220	12x12x 8	380	16x16x 6	700
4x4x3	110	10x10x10	350	12x12x 6	350	20x20x20	1390
6x6x6	180	10x10x 8	345	12x12x 4	320	24x24x24	2000
6x6x4	160	10x10x 6	295	16x16x16	770	30x30x30	2880
8x8x8	280	10x10x 4	275	16x16x12	750	36x36x36	4920
8x8x6	260	12x12x12	450	16x16x10	740	48x48x48	9000

Crosses.

Size. Inches.	Weight. Pounds.	Size. Inches.	Weight. Pounds.	Size. Inches.	Wght. Lbs.	Size. Inches.	Wght. Lbs.
3x3x3x3	100	8x 8x 4x 4	285	12x12x10x10	480	24x24x24x24	2400
4x4x4x4	160	10x10x10x10	410	12x12x 8x 8	440	30x30x30x30	3600
6x6x6x6	225	10x10x 8x 8	400	12x12x 6x 6	400	36x36x36x36	6160
6x6x4x4	210	10x10x 6x 6	380	12x12x 4x 4	357	48x48x48x48	10500
8x8x8x8	325	10x10x 4x 4	360	16x16x16x16	1020	.....	.....
8x8x6x6	315	12x12x12x12	546	20x20x20x20	1600	.....	.....

Sleeves, Plugs and Caps.

Size ..... inches	3	4	6	8	10	12	14	16	18	20	24	30	36
Sleeves, Weight....pounds	40	50	80	110	146	190	212	240	360	557	710	1175	1222
Plugs, Weight.....pounds	10	10	20	30	45	65	70	95	125	150	185	370	470
Caps, Weight.....pounds	20	30	40	75	100	120	150	190	225	284	420	450	.....

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SPECIALS FOR CAST IRON GAS AND WATER PIPE.

Y Branches.

Size.....inches	4 x 4	6 x 6	6 x 4	8 x 8	8 x 6	10 x 10	12 x 12
Weight.....pounds	155	235	218	312	302	500	750

Offsets.

Size.....inches	4 x 6	4 x 24	6 x 6	6 x 12	6 x 14	8 x 12	10 x 12	12 x 12
Weight.....pounds	80	106	135	160	207	220	285	380

Increasers.

Size.....inches	3 x 4	4 x 6	4 x 8	6 x 8	4 x 10	6 x 10	8 x 10	6 x 12	8 x 12	10 x 12
Weight.....pounds	48	108	162	165	185	195	204	230	318	332

Reducers.

Size.....inches	4x3	6x4	6x3	8x6	8x4	10x8	10x6	10x4	12x10	12x8	12x6
Weight.....lbs.	40	100	80	135	115	194	180	158	240	230	210

Size.....inches	12x4	14x12	14x10	14x8	16x12	16x10	20x16	20x12	24x16	30x24	36x30
Weight.....lbs.	200	475	430	340	400	350	690	540	750	2585	2905

Split Tees, Split Sleeves and Tapped Plugs.

Size.....inches	3	4	6	8	10	12	14	16	18	20
Price, Split Tees.....each	5.00	6.25	8.25	10.75	12.50	15.00	18.75	21.25	25.00	30.00
Price, Split Sleeves...each	2.50	2.50	3.00	5.50	7.50	10.00	12.00	16.00	20.00	25.00
Price, Tapped Plugs..each	1.50	1.50	1.75	2.75	3.50	4.00	5.00	5.00	.....	.....

Split Tees are made to order only, any size outlet required.

Tapped Plugs for connecting Wrought and Cast Iron Pipe, tapped any size required.

Split Sleeves, a special for repairing.

All sizes and reductions furnished in specials from 2 to 48 inches.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 25

WATER PIPE CLAMPS.

MALLEABLE IRON.

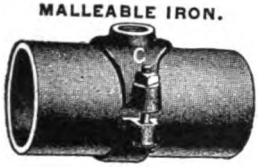

FIG 33.

CAST IRON.

FIG. 34.

Malleable Iron Water Pipe Clamps.

Number.	CLAMPS WILL FIT				Tapped for Opening. Inches.	Price. Each.	Number.	CLAMPS WILL FIT				Tapped for Opening. Inches.	Price. Each.
	Outside Diameter of Circle. Inches.	Size, Wrought Iron Pipe. Inches.	Size, Outside Diameter, Casing. Inches.	Size of Cast Iron Pipe. Inches.				Outside Diameter of Circle. Inches.	Size, Wrought Iron Pipe. Inches.	Size, Outside Diameter, Casing. Inches.	Size, Cast Iron Pipe. Inches		
1	2⅜	2	2½	.....	½ to 1	1.00	17	6	.....	6	5	2	2.40
2	2⅞	2½	2¾ and 3	2	1 to 1¼	1.25	18	6	.....	6	5	3	4.50
3	3½	3	3½	.....	¾ and 1	1.25	19	6⅝	6	6⅝	.....	¾ to 1½	2.25
4	3½	3	3½	.....	1¼ to 2	1.50	20	6⅝	6	6⅝	.....	2	2.50
5	4	3½	4	3	¾ to 1	1.50	21	6⅝	6	6⅝	.....	3	5.00
6	4	3½	4	3	1¼ to 2	1.75	22	7	.....	7	6	¾ to 1½	2.50
7	4½	4	4½	.....	¾ to 1½	1.75	23	7	.....	7	6	2	2.70
8	4½	4	4½	.....	2	2.00	24	7	.....	7	6	3	5.00
9	4½	4	4½	.....	3	4.00	25	7⅝	7	7⅝	.....	¾ to 1½	2.50
10	5	4½	5	4	¾ to 1½	1.80	26	7⅝	7	7⅝	.....	2	2.70
11	5	4½	5	4	2	2.15	27	7⅝	7	7⅝	.....	3	5.00
12	5	4½	5	4	3	4.00	28	8	.....	8	7	¾ to 1½	4.50
13	5½	5	5½	.....	¾ to 1½	1.80	29	8	.....	8	7	2	5.00
14	5½	5	5½	.....	2	2.15	30	8	.....	8	7	3	5.50
15	5½	5	5½	.....	3	4.00	31	8⅝	8	8⅝	.....	2 to 3	5.50
16	6	.....	6	5	¾ to 1½	2.00	32	8⅝	8	8⅝	.....	4	6.00

Cast Iron Water Pipe Clamps.

Pipe, Clamps, Will Fit.	Tapped for Openings, Inches.	Price, Each.
2	½ to 1	.50
3	¾ to 1	.65
3	1¼ to 2	.80
4	¾ to 1¼	.90
4	1½ to 2	1.00
5	¾ to 1¼	1.00
5	1½ to 2	1.10
6	¾ to 1¼	1.15
6	1½ to 2	1.52
7	¾ to 1¼	1.25
7	1½ to 2	1.50
8	2 to 3	3.00

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PIPE SADDLES.

MALLEABLE IRON.

FIG 35

WROUGHT IRON.

FIG. 36.

Malleable Iron Pipe Saddles.

Pipe Saddles will Fit, Inches.	Tapped for Openings, Inches.	Price, Each.	Casing Saddles will Fit, Inches.	Tapped for Openings, Inches.	Price, Each.
2	1 to 1½	1.00	4½	1 to 2	2.00
3	1 to 2	1.00	4½	1 to 2	2.25
4	1 to 2	1.25	5⅝	1 to 2	2.75
4½	1 to 2	2.50	5⅝	2½ to 4	5.50
5	1 to 2	2.75	6¼	1 to 2	3.00
6	1 to 2	2.50	6¼	2½ to 4	5.75
6	2½ to 4	5.75	7⅝	1 to 2	4.50
8	1 to 2	4.50	7⅝	2½ to 4	6.50
8	2½ to 4	6.50	8¼	1 to 2	5.00
10	1 to 2	5.50	8¼	2½ to 4	6.50
10	2½ to 4	6.75	.....	.....	.....
12	1 to 2	6.25	.....	.....	.....
12	2½ to 4	8.75	.....	.....	.....

Wrought Iron Pipe Saddles.

Pipe Saddles will Fit, Inches.	Tapped for Openings, Inches.	Price, Each.	Casing Saddles will Fit, Inches.	Tapped for Openings, Inches.	Price, Each.
2	1 to 1½	1.00	5⅝	1 to 2	2.75
2½	1 to 1½	1.50	5⅝	3 to 4	5.50
3	1 to 2	2.00	.....	.....	.....
4	1 to 2	2.25	.....	.....	.....
4½	1 to 2	2.50	.....	.....	.....
6	1 to 2	2.50	.....	.....	.....
6	3 to 4	5.75	.....	.....	.....
8	1 to 2	4.50	.....	.....	.....
8	3 to 4	6.50	.....	.....	.....
10	1 to 2	5.50	.....	.....	.....
10	3 to 4	6.75	.....	.....	.....
12	1 to 2	6.25	.....	.....	.....
12	3 to 4	8.75	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

LEAD PIPE.

Lead and Block Tin Pipe and Sheet Lead.

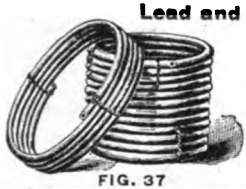

FIG. 37

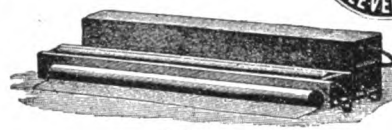

FIG. 38.

Size, Inches.	Caliber.	Weight, per Foot.	Size, Inches.	Caliber.	Weight, per Foot.
⅛	Tubing	... lbs. 2 oz.	1¼	Extra Strong	6 lbs. ... oz.
	Tubing	... 4		Extra, Extra Strong	6 12
¼	Tubing	... 6	1½	Aqueduct	3 ...
	Fish Seine	... 15		Extra Light	3 8
⅜	Aqueduct	... 8		Light	4 ...
	Extra Light	... 10		Medium	5 ...
	Light	... 12		Strong	6 ...
	Medium	1 ...		Extra Strong	7 8
	Strong	1 8		Extra, Extra Strong	9 ...
	Extra Strong	2 ...	1¾	Extra Light	3 12
½	Aqueduct	... 10		Light	4 8
	Extra Light	... 12		Medium	5 8
	Light	1 ...		Strong	6 8
	Medium	1 4		Extra Strong	8 ...
	Strong	1 12	2	Waste	3 ...
	AA	2 ...		Extra Light	4 ...
	Extra Strong	2 8		Light	5 ...
	Extra, Extra Strong	3 ...		Medium	7 ...
⅝	Aqueduct	... 12		Strong	8 ..
	Extra Light	1 4		Extra Strong	9 ..
	Light	1 12		Extra, Extra Strong	10 8
	Medium	2 ...	2½	Waste	4 ...
	Strong	2 8		Light	6 ...
	Extra Strong	3 ...		Medium	8 ...
	Extra, Extra Strong	3 8		Strong	11 ...
¾	Aqueduct	1 ...		Extra Strong	14 ...
	Extra Light	1 8		Extra, Extra Strong	17 ...
	Light	2 ...	3	Waste	3 8
	Medium	2 4		Light	4 12
	Strong	3 ...		Medium	9 ...
	Extra Strong	3 8		Strong	12 ...
	Extra, Extra Strong	4 ...		Extra Strong	16 ...
⅞	Aqueduct	1 8		Extra, Extra Strong	20 ...
	Extra Light	2 ...	3½	Waste	5 ..
	Light	2 8		Strong	15 ...
	Strong	3 8		Extra Strong	18 ...
1	Aqueduct	1 8	4	Waste	5 ..
	Extra Light	2 ...		Extra Light	6 ...
	Light	2 8		Light	8 ..
	Medium	3 4		Medium	10 ...
	Strong	4 ...		Strong	16 ...
	Extra Strong	4 12		Extra Strong	21 ...
	Extra, Extra Strong	5 8	4½	Waste	6 ...
1¼	Aqueduct	2 ...	5	Waste	8 ...
	Extra Light	2 8		Extra Light	11 ...
	Light	3 ...	6	Waste	12 ...
	Medium	3 12	¼	Thick	22 ...
	Strong	4 12			

Coils of Supply Pipe weigh about 200 pounds; Aqueduct about 90 pounds; Suction Pipe 100 to 180 pounds each.

Pure Block Tin Pipe.

Size, Inside Diam. inches	3-16	¼	5-16	⅜	½	⅝	¾	1	1¼	1½	2
Weight per Ft....ounces	4	4, 5, 6	4, 5, 8	4, 6	6, 8	9, 12	12, 16	12	20, 28	24-up	32-up

Weights and Sizes of Sheet Lead.

Thickness...in.	1-24	1-20	1-18	1-16	1-14	1-12	1-10	1-9	1-7	9-64	1-6	3-16	1-5
Lbs...per sq. ft	2½	3	3½	4	4½	5	6	7	8	9	10	11	12

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CLASSIFICATION AND PRICE LIST
MALLEABLE IRON FITTINGS
FOR STEAM, GAS AND WATER.

Class	A	B	C	D	E
Price, Black.....per pound	40	26	16	13	11
Price, Galvanized..per pound	50	35	23	20	18
Elbows	$\frac{1}{8}\times\frac{1}{8}$, $\frac{1}{4}\times\frac{1}{8}$, $\frac{3}{8}\times\frac{1}{8}$	$\frac{1}{4}\times\frac{1}{4}$, $\frac{3}{8}\times\frac{1}{4}$, $\frac{3}{8}\times\frac{3}{8}$, $\frac{1}{2}\times\frac{1}{4}$	$\frac{1}{2}\times\frac{1}{2}$, $\frac{1}{2}\times\frac{3}{8}$	*$\frac{3}{4}$ and 1	†1$\frac{1}{4}$ and larger
Elbows, Right and Left	$\frac{1}{4}$ and $\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$ and 1	*1$\frac{1}{4}$ and larger	.....
Elbows, 45°	.....	$\frac{1}{2}$ and smaller	$\frac{3}{4}$ to 2	2$\frac{1}{2}$ and larger	.....
Elbows, Street	.....	$\frac{1}{4}$ and $\frac{3}{8}$	$\frac{1}{2}$, $\frac{3}{4}$, $\frac{3}{4}\times\frac{1}{2}$, $1\times\frac{1}{2}$	1 and larger	.....
Elbows, Side Outlet	.....	$\frac{1}{2}$ and smaller	$\frac{3}{4}$ and larger	.....	.....
Elbows, Drop	.....	$\frac{1}{2}$ and smaller	$\frac{3}{4}$ and larger	.....	.....
Tees	$\frac{1}{8}\times\frac{1}{8}$, $\frac{1}{4}\times\frac{1}{8}$, $\frac{1}{4}\times\frac{1}{4}$, $\frac{3}{8}\times\frac{1}{8}$	$\frac{1}{4}\times\frac{1}{4}$, $\frac{3}{8}\times\frac{1}{4}$, $\frac{3}{8}\times\frac{3}{8}$, $\frac{1}{4}\times\frac{3}{8}$, $\frac{3}{8}\times\frac{1}{4}\times\frac{1}{4}$, $\frac{3}{8}\times\frac{1}{4}$, $\frac{3}{8}\times\frac{1}{4}\times\frac{3}{8}$	$\frac{1}{2}$ and $\frac{1}{2}$ Reducing	*$\frac{3}{4}$ and 1	†1$\frac{1}{4}$ and larger
Tees, Four-Way	.....	$\frac{1}{2}$ and smaller	$\frac{3}{4}$ and larger	.....	.....
Tees, Drop	.....	$\frac{1}{2}$ and smaller	$\frac{3}{4}$ and larger	.....	.....
Straight Crosses	.....	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$	$\frac{3}{4}$ and 1	1$\frac{1}{4}$ and larger	.....
Reducing Crosses	.....	1 and smaller	.....	*1$\frac{1}{4}$ and larger	.....
Rod Couplings	All Sizes	.....	.....	.....	.....
Y Bends	.....	$\frac{1}{2}$ and $\frac{3}{4}$	1 and larger	.....	.....
Return Bends	.....	$\frac{3}{8}$ and $\frac{1}{2}$	$\frac{3}{4}$ and 1	1$\frac{1}{4}$ and larger	.....
Return Bends, Right and Left	$\frac{3}{8}$ and $\frac{1}{2}$	$\frac{3}{4}$ and 1	1$\frac{1}{4}$ and larger	.....	.....
Couplings, R. H	$\frac{1}{8}$	$\frac{1}{4}$ and $\frac{3}{8}$	$\frac{1}{2}$ and $\frac{3}{4}$	1 and 1$\frac{1}{4}$	1$\frac{1}{2}$ and 2
Couplings, R. and L	$\frac{1}{8}$	$\frac{1}{4}$ and $\frac{3}{8}$	$\frac{1}{2}$ and $\frac{3}{4}$	1 and larger	.....
Couplings, Reducing	$\frac{1}{4}\times\frac{1}{8}$, $\frac{3}{8}\times\frac{1}{8}$	$\frac{3}{8}\times\frac{1}{4}$ to $\frac{3}{4}\times\frac{3}{8}$	$\frac{3}{4}\times\frac{1}{2}$ to $1\times\frac{3}{4}$	*1$\frac{1}{4}$ and larger	.....
				1$\frac{1}{2}$ and larger	.....
Caps	.....	$\frac{1}{4}$ and $\frac{3}{8}$	$\frac{1}{2}$ to 1	.....	.....
Locknuts	.....	$\frac{1}{4}$ to $\frac{1}{2}$	$\frac{3}{4}$ to 1$\frac{1}{4}$	1$\frac{1}{2}$ and larger	.....
Extension Pieces	.....	$\frac{3}{8}$ and $\frac{1}{2}$	$\frac{3}{4}$ and larger	.....	.....
Waste Nuts	.....	$\frac{3}{4}$ and smaller	1 and larger	.....	.....
Chandelier Hooks	.....	All sizes	.....	.....	.....
Wall Plates	.....	All sizes	.....	.....	.....

*Fittings in Class D having one or more outlets smaller than $\frac{3}{4}$ will be charged in Class C.

†Fittings in Class E having one or more outlets smaller than 1 will be charged in Class D.

In ordering be particular to state whether for gas or steam.

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MALLEABLE IRON FITTINGS.

Straight and Reducing.

PLAIN ELBOW.

FIG. 39.

BEADED ELBOW.

FIG. 40.

Elbows, Black and Galvanized.

Size..... inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2
Price, R. H., Black.....each	.04	.04	.06	.10	.15	.22	.25	.35
Price, R. and L., Black.....each	.....	.05	.07	.12	.17	.25	.30	.40
Price, R. H., Galvanized.....each	.....	.05	.08	.14	.20	.32	.40	.60

Size..... inches	2	2 1/2	3	3 1/2	4	4 1/2	5	6
Price, R. H., Black.....each	.50	.80	1.50	2.25	3.00	3.50	4.00	5.00
Price, R. and L., Black.....each	.65	.....	.....	.....	.....	.....	.....	.....
Price, R. H., Galvanized.....each	.90	1.35	2.60	3.75	5.00	.....	.....	.....

45° ELBOW

FIG. 41

STREET ELBOW

FIG. 42.

45° ELBOWS.

Black and Galvanized.

Size..... inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Price, Black.....each	.08	.10	.12	.18	.26	.36	.54	.82
Price, Galvanized.....each	.12	.15	.20	.25	.40	.50	.85	1.35

Size..... inches	2 1/2	3	3 1/2	4	4 1/2	5	6	.....
Price, Black.....each	1.25	2.50	3.25	4.50	5.25	6.00	7.50	.....
Price, Galvanized.....each	1.90	3.75	. . .	6.75	.....	.....	.....	.....

STREET ELBOWS.

Black and Galvanized.

Size..... inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Price, Black.....each	.10	.10	.12	.20	.25	.40	.55	.90	1.50
Price, Galvanized.....each	.12	.12	.15	.28	.35	.55	.80	1.30	.....

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MALLEABLE IRON FITTINGS.

SIDE OUTLET ELBOW

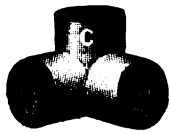

FIG. 43.

DROP ELBOW, FEMALE.

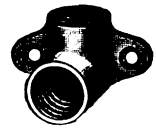

FIG. 44.

Side Outlet Elbow, Black and Galvanized.

Size.....inches	⅜	½	¾	1	1¼	1½	2
Price, Black.....each	.08	.10	.18	.30	.45	.60	1.00
Price, Galvanized.....each	.10	.15	.25	.45	.65	.90	1.50

Drop Elbows, Female, Black and Galvanized.

Size.....inches	¼	⅜	½	¾
Price, Black.....each	.06	.08	.12	.20
Price, Galvanized.....each	.....	.12	.20	.35

DROP ELBOWS, MALE AND FEMALE.

FLANGES, RIGHT OR LEFT

FIG. 45.

FIG. 46.

2 1-2 INCH LONG DROP.

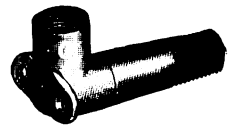

FIG. 47.

Drop Elbows, Male and Female, Black and Galvanized.

Size..... inches	¼x⅜	⅜x⅜
Price, Right or Left Drop Elbows, Black.....each	.08	.08
Price, with 2½ inch Long Drop, Black.....each	.10	.10
Price, with 2½ inch Long Drop, Galvanized.....each	.18	.18

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

MALLEABLE IRON FITTINGS.

Union Elbows.

WITH FEMALE UNION.

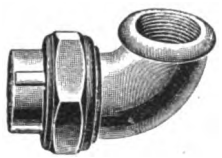

FIG. 48.

WITH MALE UNION.

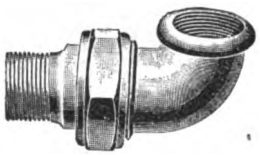

FIG. 49.

Union Elbows, Black and Galvanized.

Size..... inches	½	¾	1	1¼	1½	2	2½
Price, with Female Union, Black, each	.42	.54	.63	.90	1.05	1.55	2.85
Price, with Female Union, Galv. each	.63	.81	.95	1.35	1.58	2.35	4.30
Price, with Male Union, Black....each	.48	.62	.72	1.05	1.20	1.80	3.30
Price, with Male Union, Galv.....each	.72	.93	1.08	1.60	1.80	2.70	4.95

Union Tees.

WITH FEMALE UNION.

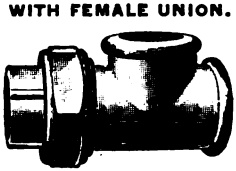

FIG. 50.

WITH MALE UNION.

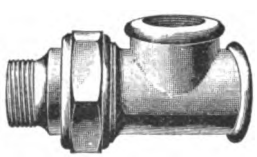

FIG. 51.

Union Tees, Black and Galvanized.

Size.....inches	½	¾	1	1¼	1½	2	2½
Price, with Female Union, Black, each	.45	.57	.70	.95	1.15	1.70	3.20
Price, with Female Union, Galv...each	.68	.86	1.05	1.45	1.75	2.55	4.80
Price, with Male Union, Black.....each	.52	.65	.80	1.10	1.30	1.95	3.70
Price, with Male Union, Galv.....each	.78	1.00	1.20	1.65	1.95	2.95	5.55

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MALLEABLE IRON FITTINGS.

Straight and Reducing.

PLAIN TEE.

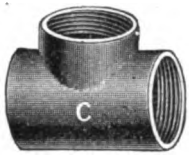

FIG. 52.

BEADED TEE.

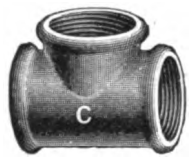

FIG. 53.

Tees, Black and Galvanized.

Size ..... inches	⅛	¼	⅜	½	¾	1	1¼	1½
Price, Black ..... each	.07	.07	.08	.11	.15	.25	.30	.45
Price, Galvanized ..... each	.....	.09	.10	.16	.20	.38	.50	.70

Size ..... inches	2	2½	3	3½	4	4½	5	6
Price, Black ..... each	.60	1.05	1.70	2.50	3.40	4.25	5.00	7.00
Price, Galvanized ..... each	1.00	1.90	3.00	4.25	5.75	.....	.....	.....

FOUR WAY TEE.

FIG. 54.

DROP TEE.

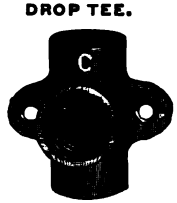

FIG. 55.

SERVICE TEE.

FIG. 56.

Four Way Tees.

Size .. inches	⅜	½	¾	1	1¼	1½	2
Price, Black ..... each	.12	.14	.20	.35	.50	.80	1.25

Drop Tees, Black and Galvanized.

Size ..... inches	⅜	½	¾	1
Price, Black ..... each	.10	.14	.22	.30
Price, Galvanized ..... each	.15	.25	.40	.55
Price, with Drop 2½ inches long, Black ..... each	.12	.....	.....	.....

Service Tees, Black and Galvanized.

Size ..... inches	½	¾	1	1¼	1½	2	2½
Price, Black ..... each	.15	.25	.35	.50	.75	1.15	2.00
Price, Galvanized ..... each	.20	.35	.50	.70	1.10	1.65	

Parties desiring R. and L. Tees will please state, when ordering, which hole is to be tapped left hand. Such goods can always be furnished to order.

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MALLEABLE IRON FITTINGS.

Straight and Reducing.

PLAIN CROSS.

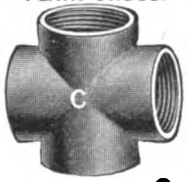

FIG. 57.

BEADED CROSS.

FIG. 58.

Crosses, Black and Galvanized.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4	5
Price, Black, each	.08	.10	.12	.20	.30	.40	.60	1.00	1.75	3.00	3.25	5.25	7.50
Price, Galv...each	.....	.....	.17	.25	.45	.60	.90	1.50	2.75	4.50	.....	8.00	.....

Y.

FIG. 59.

CROSS OVER.

FIG. 60.

Y's Black and Galvanized.

Size.....inches	1	1¼	1½	2	2½	3	4
Price, Black.....each	.60	.80	1.00	1.70	2.00	4.00	5.50
Price, Galvanized.....each	.90	1.25	1.50	2.50	3.00	6.00	8.25

Cross Overs, Black and Galvanized.

Size.....inches	½	¾	1
Price, Black.....each	.20	.30	.45
Price, Galvanized.....each	.25	.40	.60

CAP.

FIG. 61.

Caps, Black and Galvanized.

Size.....inches	¼	⅜	½	¾	1	1¼
Price, Black.....each	.03	.04	.05	.08	.12	.16
Price, Galvanized.....each	.04	.05	.08	.12	.17	.24

Size.....inches	1½	2	2½	3	3½	4
Price, Black.....each	.24	.32	.45	.85	1.00	1.20
Price, Galvanized.....each	.38	.52	.76	1.30	1.60	2.00

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MALLEABLE IRON FITTINGS.

Return Bends.

CLOSE PATTERN.

FIG. 62.

MEDIUM PATTERN.

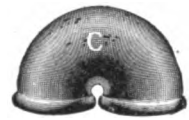

FIG. 63.

Return Bends, Close Pattern, Black and Galvanized.

Size ..... inches	½	¾	1	1¼	1½	2
Price, Black.....each	.13	.25	.35	.50	.75	1.00
Price, Galvanized.....each	.25	.35	.55	.75	1.15	1.65
Center to Center.....inches	1	1¼	1½	1¾	2 3/16	2⅝

Return Bends, Close Pattern, Right and Left, and Left.

Size ..... inches	½	¾	1	1¼	1½	2
Price, Right and Left, Black.....each	.15	.30	.45	.60	.90	1.25
Price, Left Hand, Black.....each	.15	.30	.45	.60	.90	1.25

Return Bends, Medium Pattern, Black and Galvanized.

Size ..... inches	½	¾	1	1¼	1½	2
Price, Black.....each	.13	.25	.35	.50	.75	1.00
Price, Galvanized.....each	.25	.35	.55	.75	1.15	1.65
Center to Center.....inches	1¼	1½	1⅞	2¼	2½	3

Return Bends, Medium Pattern, Right and Left, and Left.

Size ..... inches	½	¾	1	1¼	1½	2
Price, Right and Left, Black..... each	.15	.30	.45	.60	.90	1.25
Price, Left Hand, Black.....each	.15	.30	.45	.60	.90	1.25

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Return Bends.

OPEN PATTERN RETURN BEND.

FIG. 64.

Open Pattern, Black and Galvanized.

Size .....inches	½	¾	1	1¼	1½	2	2½	3
Price, Right Hand, Black, each	.15	.30	.50	.65	.85	1.25	2.00	3.00
Price, Right Hand, Galv. each	.25	.45	.70	.90	1.25	2.00	3.50	5.00
Price, Right and Left, Bl'k each	.20	.38	.60	.80	1.05	1.55	2.50	3.75
Price, Left Hand, Black...each	.20	.38	.60	.80	1.05	1.55	2.50	3.75
Center to Center.....inches	1½	2	2½	3	3½	4	4½	5

Special Wide Pattern, Black and Galvanized.

Size.....inches	⅜	½	¾	¾	1	1¼
Price, Black.....each	.25	.....	1.00	1.25	1.25	1.25
Price, Galvanized.....each	.30	.....	1.35	1.65	1.70	1.70
Center to Center.....inches	1½	.....	4	6	6	6

Size.....inches	1½	2	3	3	4	6
Price, Black.....each	2.00	3.00	5.00	5.00	8.00	16.00
Price, Galvanized.....each	2.75	4.00	6.50	6.50	.....	.....
Center to Center.....inches	6	5	7½	8	6	12

Extra Heavy.

Size.....inches	1	1	1½	2	2	2	2
Center to Center.....inches	1¾	2¼	5	3	3¼	3½	3¾

Prices on application.

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MALLEABLE IRON FITTINGS.

LOCKNUT.

FACED LOCKNUT.

FIG. 65. **Locknuts, Black and Galvanized.** FIG. 66.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2
Price, Black.....each	.02	.03	.04	.05	.07	.09	.11	.18
Price, Galvanized.....each	.03	.04	.05	.07	.10	.14	.20	.30

Faced Locknuts, Black and Galvanized.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price, Black.....each	.08	.09	.10	.12	.15	.20	.25	.30	.35	.45
Price, Galv.....each	.11	.13	.15	.18	.22	.30	.35	.45	.50	.65

EXTENSION PIECE.

FIG. 67.

WASTE NUT.

FIG. 68.

Extension Pieces, Black and Galvanized.

Size.....inches	⅜	½	¾
Price, Black.....each	.06	.09	.12
Price, Galvanized.....each	.09	.13	.18

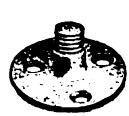
Waste Nuts, Black and Galvanized.

Size.....inches	¼	⅜	½	¾	1	1¼	1½
Price, Black.....each	.04	.05	.06	.08	.10	.15	.25
Price, Galvanized.....each	.08	.10	.12	.16	.20	.30	.50

CHANDELIER HOOK.

FIG. 69.

WALL PLATE.



Chandelier Hooks and Wall Plates. FIG. 70.

Size.....inches	⅜	½
Price, Chandelier Hooks or Loops.....each	.10	.12
Price, Wall Plates.....each	.12	.16

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MALLEABLE IRON FITTINGS.

Unions.

STANDARD UNION.

FIG. 71.

JEFFERSON UNION.

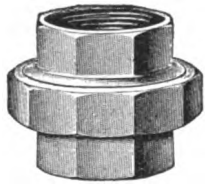

FIG. 72.

SECTIONAL.

Standard Unions, Black and Galvanized.

Size ..... inches	⅛	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4
Price, Black, each	.18	.18	.20	.22	.27	.33	.46	.58	.75	1.55	2.10	3.65	4.35
Price, Galv., each	.27	.27	.30	.33	.40	.50	.70	.90	1.15	2.35	3.15	5.50	6.50

Jefferson Unions, Bronze Seat, Malleable Iron Ball Shoulder.

Size ..... inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price, Black ..... each	.30	.40	.50	.60	.80	1.20	1.60	2.00	3.20	4.80
Price, Galvanized ..... each	.45	.60	.75	.90	1.20	1.80	2.40	3.00	4.80	6.20

DART UNION.

FIG. 73.

SECTIONAL.

FIG. 74.

KEWANEE UNION.

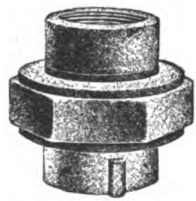

FIG. 75.

SECTIONAL.

FIG. 76.

Dart Unions, Bronze Seats, Ball Bearings, Ground Joints. Black and Galvanized.

Size ..... inches	⅛	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price, Black ..... each	.30	.30	.40	.50	.60	.80	1.20	1.60	2.00	3.20	4.80
Price, Galvanized ..... each	.45	.45	.60	.75	.90	1.20	1.80	2.40	3.00	4.80	6.20

Kewanee Unions, Brass and Iron Ground Ball Joints. Black and Galvanized.

Size ..... inches	⅛	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price, Black ..... each	.18	.19	.22	.27	.40	.48	.66	.80	1.14	2.10	2.65
Price, Galvanized ..... each	.22	.23	.26	.34	.49	.60	.82	1.10	1.40	2.75	3.50

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MALLEABLE IRON FITTINGS.

Couplings.

RIGHT.

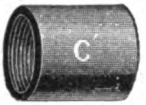

FIG. 77.

RIGHT AND LEFT.

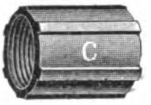

FIG. 78.

Right Hand Couplings, Black and Galvanized.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2
Price, Black.....each	.03	.04	.07	.10	.14	.20	.25	.35
Price, Galvanized.....each	.05	.07	.10	.17	.23	.30	.40	.55

Right and Left Hand Couplings, Black and Galvanized.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2
Price, Black.....each	.04	.05	.08	.12	.16	.25	.36	.52
Price, Galvanized.....each	.06	.08	.10	.17	.25	.35	.55	.75

REDUCING.

FIG. 79.

OFFSET REDUCING.

FIG. 80.

Reducing Couplings, Black and Galvanized.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4
Price, Black.....each	.03	.03	.05	.10	.16	.20	.28	.45	.70	1.00	1.50	1.85
Price, Galv.....each	.....	.....	.08	.15	.25	.35	.45	.75	1.05	1.65	2.40	3.05

Offset Reducing Couplings.

Size.....inches	1x¾	1¼x1	1½x1¼	2x1½	2½x2	3x2½
Price, Black.....each	.60	.70	.90	1.10	1.80	2.50

Size.....inches	3½x3	4x3	4x3½	4½x4	5x4	5x4½
Price, Black.....each	3.00	4.00	4.00	5.00	6.00	6.00

This fitting is the same as a Male and Female Reducer, except that the inlet and outlet are on the same level. By its use water pockets are prevented.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STANDARD WROUGHT IRON COUPLINGS.

WROUGHT IRON COUPLING.

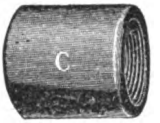

FIG. 81.

Black and Galvanized.

Size, Inches.	Price, Black, Each.	Price, Galvanized, Each.	Price, Right and Left, Black, Each.	Price, Right Hand, Faced, Black, Each.	Price, Right Hand, Faced, Galvanized, Each.	Actual Outside Diameter, Inches.	Length of Coupling, Inches.	Weight of Coupling, Pounds.	No. of Threads per Inch of Screw.
⅛	.05	.06	.....	.....	.....	⅜	1 3/16	1/32	27
¼	.05	.06	.07	.09	.14	17/32	1	1/16	18
⅜	.06	.08	.08	.10	.15	11/16	1 3/16	3/32	18
½	.07	.10	.11	.12	.18	7/8	1 5/16	5/32	14
¾	.10	.13	.15	.16	.24	1 1/16	1 9/16	1/8	14
1	.13	.18	.20	.22	.33	1 5/16	1 3/4	1/8	11½
1¼	.17	.25	.25	.30	.45	1 11/16	1 15/16	1/4	11½
1½	.21	.32	.30	.40	.60	1 29/32	2 1/16	1/4	11½
2	.28	.40	.50	.50	.75	2 3/8	2 5/16	1/4	11½
2½	.40	.55	.85	.70	1.00	3 3/32	2 11/16	1/2	8
3	.60	.80	1.20	.90	1.35	4 1/4	3	3/4	8
3½	.80	1.05	1.60	1.20	1.80	4 9/16	3 1/4	1	8
4	1.00	1.40	2.00	1.50	2.25	5 3/16	3 1/8	1 1/4	8
4½	1.50	2.00	.....	2.10	.....	5 13/16	3 1/8	1 1/2	8
5	1.65	2.25	.....	2.40	.....	6 1/4	3 1/16	1 3/4	8
6	2.40	3.25	.....	3.60	.....	7 1/32	3 1/16	2 1/2	8
7	3.25	.....	.....	.....	.....	8 3/32	4 5/16	3 1/2	8
8	4.25	.....	.....	.....	.....	9 7/16	4 9/16	5	8
9	5.50	.....	.....	.....	.....	10 1/32	5 1/4	6 1/4	8
10	7.50	.....	.....	.....	.....	11 1/32	6 1/4	7 1/2	8
12	10.00	.....	.....	.....	.....	13 25/32	6 1/4	10	8

WROUGHT IRON COUPLINGS.

Miscellaneous Sizes.

Size.....inches	⅜	½	¾	1	1	1¼	1½	2	2	2
Outside Diam.....inches	1 5/16	1 1/8	1 11/16	1 29/32	2	1 15/16	2 3/32	2 5/16	2 5/16	2 5/16
Length.....inches	1¾	2	1⅞	3½	3	3	3½	2½	2½	3¾

These Couplings are made to order only. Prices according to quantity, on application.

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HYDRAULIC WROUGHT IRON COUPLINGS.

PLAIN HYDRAULIC COUPLING.

FIG. 82.

RECESSED HYDRAULIC COUPLING.

FIG. 83.

Size ..... inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4
Price, Black.....each	.14	.20	.26	.34	.42	.56	.80	1.20	1.60	2.00		
Price, Galvanized.....each	.20	.25	.32	.42	.55	.75	1.05	1.50	1.90	3.00		
Price, Recessed, Black.....each	.25	.30	.35	.45	.55	.70	.95	1.40	1.85	2.25		
Price, Recessed, Galv.....each	.30	.35	.40	.55	.70	.90	1.20	1.70	2.15	3.25		
Outside Diameter.....inches	1.13	1.44	1.63	1.94	2.31	2.75	3.31	4.00	4.63	5.13		
Length..... inches	1.88	2.13	2.38	2.63	2.94	3.13	3.50	3.69	4.25	4.25		
Threads to inch of Screw.....	14	14	11½	11½	11½	11½	8	8	8	8		
Weight, each.....pounds	.28	.45	.56	.84	1.35	1.82	2.37	3.38	4.74	6.24		

Size ..... inches	4½	5	6	7	8	9	10
Price, Recessed, Black.....each	4.00	4.80	5.60	7.70	8.00	10.00	12.00
Price, Recessed, Galv.....each	5.70	6.90	8.00	11.10	11.60	14.50	17.50

These Couplings are made extra heavy and long, and cut with a perfect taper and longer thread.

Threads for these Couplings may be cut with an ordinary die.

Special Couplings.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4
Price, Black.....each	.13	.18	.24	.30	.38	.50	.70	1.10	1.40	1.80		
Price, Galvanized.....each	.19	.23	.30	.38	.50	.70	.95	1.40	1.70	2.20		
Price, Recessed, Black.....each	.24	.28	.33	.40	.50	.65	.85	1.30	1.65	2.05		
Price, Recessed, Galv.....each	.28	.33	.38	.50	.65	.85	1.10	1.60	1.95	2.45		
Outside Diameter.....inches	1.09	1.31	1.63	1.94	2.31	2.78	3.25	3.94	4.50	5.00		
Length.....inches	1.63	1.88	2.13	2.38	2.63	2.94	3.13	3.38	3.63	3.63		
Threads to inch of Screw.....	14	14	11½	11½	11½	11½	8	8	8	8		
Weight, each.....pounds	.20	.33	.50	.74	1.15	1.75	1.84	2.87	4.00	4.87		

These Couplings are similar to the others, but not so long or heavy.

XX Hydraulic Couplings.

Size.....inches	¾	1	1¼	1½	2
Price, Black.....each	.40	.55	.70	.85	1.15
Outside Diameter.....inches	1.69	1.94	2.19	2.44	3.19
Length.....inches	2.13	2.63	2.88	3.13	3.38
Threads to inch of Screw.....	14	11½	11½	11½	11½
Weight, each.....pounds	.80	1.04	1.50	1.75	3.28

The object of the Recessed Couplings is to make a better joint, protecting the pipe at the weak point, viz.: That part left exposed from cutting the thread and not covered with the ordinary coupling.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CAST AND MALLEABLE IRON BUSHINGS.

BUSHING.

FIG. 84.

Cast Iron Bushings, Black and Galvanized.

REDUCING TWO OR MORE SIZES, UP TO 2 1-2 INCH, INCLUSIVE, REDUCING ONE OR MORE SIZES, 3 INCH AND UP.

FACED BUSHING.

FIG. 85.

Size.....inches	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4
Price, Black...each	.04	.04	.05	.06	.07	.09	.14	.21	.30	.40	.50
Price, Galv ...each	.08	.08	.10	.12	.14	.18	.28	.42	.60	.80	1.00

Size.....inches	4½	5	6	7	8	9	10	12	14	15	.....
Price, Black...each	.75	.93	1.25	1.87	2.75	3.25	3.75	5.00	12.50	15.00	.....
Price, Galv....each	1.50	1.85	2.50	3.75	5.50	6.50	7.50	10.00	25.00	30.00	.....

Eccentric Bushings.

REDUCING TWO OR MORE SIZES.

Size.....inches	2	2½	3	3½	4	4½	5	6	7	8	9	10	12	14
Price, Black..each	.27	.42	.60	.80	1.00	1.50	1.85	2.50	3.75	5.50	6.50	7.50	10.00	25.00

Malleable Iron Bushings, Black and Galvanized.

REDUCING ONE SIZE ONLY.

Size .....inches	¼	⅜	½	¾	1	1¼	1½	2	2½
Price, Black .....each	.04	.04	.04	.05	.06	.07	.09	.14	.21
Price, Galvanized.....each	.08	.08	.08	.10	.12	.14	.18	.28	.42

Faced Bushings, Malleable Iron.

Size .....inches	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4	4½	5	6
Price, Black.....each	.08	.09	.11	.13	.17	.22	.32	.48	.70	1.20	1.50	2.10	2.60	3.75

PLUG.

FIG. 86.

PLUGS.

Cast Iron.

COUNTERSUNK PLUG.

FIG. 87.

Black and Galvanized.

Size .....inches	⅛	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½
Price, Black..each	.02	.02	.02	.02	.03	.04	.05	.07	.10	.18	.25	.38
Price, Galv...each	.....	.04	.04	.04	.06	.08	.10	.14	.20	.36	.50	.76

Size.....inches	4	4½	5	6	7	8	9	10	12	14	15	.....
Price, Black..each	.42	.65	.88	1.20	1.85	2.75	3.25	3.75	5.00	12.50	15.00	.....
Price, Galv...each	.84	1.30	1.75	2.40	3.70	5.50	6.50	7.50	10.00	25.00	30.00	.....

Countersunk and Special Plugs.

Size ..... inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4	4½	5	6
Price, Countersunk...each	.....	.....	.04	.06	.08	.09	.11	.15	.30	.40	.....	.....	.....	.....	.....
Price, Left Hand.....each	.....	.....	.....	.06	.08	.09	.11	.15	.....	.....	.....	.....	.....	.....	.....
Price, Solid.....each	.04	.04	.04	.06	.08	.09	.11	.15	.27	.38	.57	.63	1.00	1.35	1.80

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MALLEABLE IRON AND BRASS RAILING FITTINGS.

No. 1.
R. H.

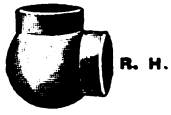


FIG. 88.

No. 2.
R. H.

R. H.
FIG. 89.

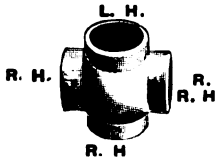
No. 3.
R. H.

FIG. 90.

No. 4.
R. H.

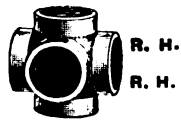
R. H.
FIG. 91.

No. 5.
L. H.



R. H
FIG 92.

No. 6.
R. H.



R. H.
FIG. 93.

No. 7.
R. H.

FIG. 94.

No. 8.

L. H.
FIG. 95.

Instructions for Ordering.

In ordering these Fittings, describe kind wanted by number and size.

Fittings tapped as above will be furnished, unless otherwise specified.

Fittings tapped otherwise than those shown on the above cuts will be charged at 15 per cent. additional, net.

Malleable Iron Railing Fittings.

Pipe Size.....inches	½	¾	1	1¼	1½	2	2½	3
Price, No. 1, Elbow.....each	.15	.18	.20	.35	.45	.72	1.00	1.50
Price, No. 2 Elbow, Side Outlet...each	.20	.23	.25	.40	.50	.80	1.15	1.70
Price, No. 3, Tee.....each	.20	.23	.25	.40	.50	.75	1.20	1.90
Price, No. 4, Tee, Side Outlet .....each	.30	.33	.35	.45	.55	.90	1.40	2.15
Price, No. 5, Cross.....each	.30	.33	.35	.45	.58	1.00	1.50	2.25
Price, No. 6, Cross, Side Outlet.....each	.35	.38	.40	.50	.65	1.35	1.75	2.60
Price, No. 7, Floor Flange.....each	.14	.15	.15	.20	.28	.30	.50	.75
Price, No. 8, Acorn Ornament .....each	.16	.18	.20	.25	.35	.90	1.00	1.50

Finished Brass Railing Fittings.

Pipe Size.....inches	½	¾	1	1¼	1½	2	2½	3
Price, No. 1, Elbow.....each	.60	.70	.80	1.20	1.60	2.50	4.00	7.00
Price, No. 2, Elbow, Side Outlet...each	.80	.90	1.10	1.70	2.00	3.00	6.00	8.50
Price, No. 3, Tee.....each	.80	.90	1.10	1.70	2.00	3.00	6.00	8.50
Price, No. 4, Tee, Side Outlet.....each	1.20	1.30	1.50	2.00	2.40	3.50	7.00	10.00
Price. No. 5, Cross.....each	1.20	1.30	1.50	2.00	2.40	3.50	7.00	10.00
Price, No. 6, Cross, Side Outlet.....each	1.40	1.50	1.70	2.25	3.00	4.00	8.00	11.50
Price, No. 7, Floor Flange.....each	.30	.40	.55	.75	1.00	1.30	2.00	3.00
Price, No. 8, Acorn Ornament.....each	1.00	1.50	2.00	2.50	3.25	4.50	5.50	7.00

Brass Railing Fittings will be furnished tapped, as per table above, unless otherwise ordered, and are made to order only.

In ordering, describe kind wanted by number and size.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

MALLEABLE IRON AND BRASS ADJUSTABLE RAILING FITTINGS.

No. 1. ELBOW.

FIG. 96.

No. 2. TEE.

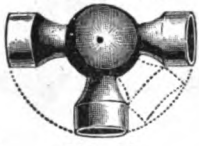

FIG. 97.

No. 3. CROSS.

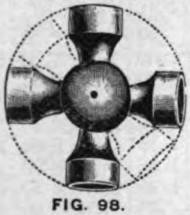

FIG. 98.

No. 4. STAIR TEE.

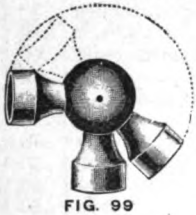

FIG. 99

No. 5. STAIR CROSS

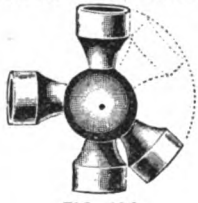

FIG. 100

No. 6. STAIR TEE

FIG. 101.

No. 7. STAIR CROSS

FIG. 102.

Malleable Iron Railing Fittings.

Size,.....inches	1	1¼	1½	2
Price, No. 1. Elbow,.....each	1.10	1.25	1.70	2.25
Price, No. 2. Tee,.....each	1.30	1.50	2.00	2.50
Price, No. 3. Cross,..... each	1.50	1.75	2.35	2.75
Price, No. 4. Stair Tee,.....each	1.30	1.60	2.15	2.50
Price, No. 5. Stair Cross,.....each	1.50	1.85	2.50	2.75
Price, No. 6. Stair Tee,.....each	.90	1.10	1.50	2.15
Price, No. 7. Stair Cross,.....each	1.00	1.20	1.60	2.40

Finished Brass Railing Fittings.

Size,.....inches	1	1¼	1½	2
Price, No. 1. Elbow,.....each	2.75	3.15	4.25	5.65
Price, No. 2. Tee,.....each	3.25	3.75	5.00	6.25
Price, No. 3. Cross,.....each	3.75	4.40	5.90	6.90
Price, No. 4. Stair Tee,.....each	3.25	4.00	5.40	6.25
Price, No. 5. Stair Cross.....each	3.75	4.65	6.25	6.90

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MALLEABLE IRON AND BRASS 45° ANGLE RAILING FITTINGS.

No. 1. ELBOW.

FIG. 103.

No. 3. ELBOW.

FIG. 104.

No. 5. TEE.

FIG. 105.

No. 7. CROSS.

FIG. 106.

No. 9. FLOOR FLANGE.

FIG. 107

Malleable Iron Railing Fittings.

Size.....inches	1	1¼	1½	2	2½	3
Price, No. 1, Elbow.....each	.40	.70	.90	1.44	2.00	3.00
Price, No. 2, Elbow, Side Outlet (no cut) each	.50	.80	1.00	1.60	2.30	3.40
Price, No. 3, Elbow.....each	.40	.70	.90	1.44	2.00	3.00
Price, No. 4, Elbow, Side Outlet (no cut) each	.50	.80	1.00	1.60	2.30	3.40
Price, No. 5, Tee.....each	.50	.80	1.00	1.60	2.40	3.80
Price, No. 6, Tee, Side Outlet (no cut).....each	.70	.90	1.10	1.80	2.80	4.30
Price, No. 7, Cross.....each	.70	.90	1.16	2.00	3.00	4.50
Price, No. 8, Cross, Side Outlet (no cut)..each	.80	1.00	1.30	2.70	3.50	5.20
Price, No. 9, Floor Flange.....each	.30	.40	.56	.60	1.00	1.50

Angle Railing Fittings, differing from above, at special prices.

Finished Brass Railing Fittings.

Size.....inches	1	1¼	1½	2	2½	3
Price, No. 1, Elbow.....each	1.60	2.40	3.20	5.00	8.00	14.00
Price, No. 2, Elbow, Side Outlet.....each	2.20	3.40	4.00	6.00	12.00	17.00
Price, No. 3, Elbow.....each	1.60	2.40	3.20	5.00	8.00	14.00
Price, No. 4, Elbow, Side Outlet.....each	2.20	3.40	4.00	6.00	12.00	17.00
Price, No. 5, Tee.....each	2.20	3.40	4.00	6.00	12.00	17.00
Price, No. 6, Tee, Side Outlet.....each	3.00	4.00	4.80	7.00	14.00	20.00
Price, No. 7, Cross.....each	3.00	4.00	4.80	7.00	14.00	20.00
Price, No. 8, Cross, Side Outlet.....each	3.40	4.50	6.00	8.00	16.00	23.00
Price, No. 9, Floor Flange.....each	1.10	1.50	2.00	2.60	4.00	6.00

Angle Railing Fittings, differing from above, at special prices.
We illustrate two popular styles Exhibition Railings.

FIG. 108.

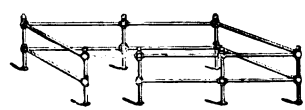

FIG. 109.

PLEASE READ THIS NOTICE WITH CARE.—To construct a Railing *two* pipes high, the upper outlet of all fittings used in lower pipe should be tapped with LEFT HAND THREAD, but when orders are sent us without specifying how outlets are to be tapped, ALL FITTINGS WILL INVARIABLY BE FURNISHED RIGHT HAND.

As the Fittings do not need to be steam or water tight a sufficiently clean thread to screw up well and make a good job can be made by running a *left hand tap* into any outlet tapped *right hand*.

A neat and simple gate can be made by reducing with a bushing the outlets of the fittings on each side of the passage way, and then using a smaller size pipe to slide back and forward inside of the top rail with a pin to prevent its running back too far. (See dotted line in cut.)

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RAILING FITTINGS.

Pipe Gate Hinge.

MALLEABLE IRON.

FIG. 110.

Loafer Rail.

CAST IRON.

FIG. 111.

Size,.....inches	1	1¼	1½	2
Price, Pipe Gate Hinges,.....each	.70	.85	1.25	1.50
Price, Loafer Rails, in lengths of 18 inches.....each	.30	.30	.30	.30

Counter Bracket.

CAST IRON.

FIG. 112.

Cap.

FINISHED BRASS.

FIG. 113.

Size,.....inches	1	1¼	1½	2
Price, Counter Brackets,.....each	.30	.50	1.00	1.25
Price, Caps,.....each	.80	1.00	1.20	1.75

Griffin Foot Rail Bracket and Fixtures.

END FITTING.

FIG. 114.

FOOT RAIL BRACKET

FIG. 115

CORNER FITTING.

FIG. 116.

Size, One Inch.....	Plain Iron.	Bronzed Iron.	Galvanized Iron.	Artistic Brass.
Price, End Fittings,.....each	.15	.25	.25	1.40
Price, Brackets,.....each	.50	.85	.85	3.50
Price, Corner Fittings,.....each	.50	.75	.75	3.00

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ROUGH BRASS FITTINGS.

Iron Pipe Size.

ELBOW.

FIG. 117.

TEE.

FIG 118.

UNION.

FIG. 119.

Size..... inches	⅛	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4
Price, Elbows.....each	.12	.17	.21	.28	.35	.50	.85	1.10	1.50	3.50	4.50	7.00	10.00
Price, Elbows, Reducing...ea.	.....	.22	.26	.35	.45	.62	1.10	1.40	1.90	4.40	5.65	8.75	12.50
Price, Elbows, 45°.....ea.	.....	.25	.30	.10	.50	.75	1.25	1.65	2.25	5.25	6.75	.....	.....
Price, Elbows, Street...ea.	.....	.....	.35	.55	.75	1.00	1.80	2.50	3.25	.....	.....	.....	.....
Price, Elbows, Drop Female ea.	.....	.20	.30	.40	.60	.85	1.20	1.90	2.50	.....	.....	.....	.....
Price, Elbows, Side Outlet..ea.	.....	.....	.30	.40	.60	.85	1.20	1.60	.....	.....	.....	.....	.....
Price, Tees.....ea.	.15	.20	.30	.40	.50	.75	1.00	1.30	1.75	4.00	5.50	9.00	13.00
Price, Tees, Reducing..ea.	.....	.25	.38	.50	.63	.95	1.25	1.65	2.20	5.00	6.90	11.25	16.25
Price, Tees, Drop Female....ea.	.....	.....	.35	.45	.70	1.05	.....	.....	.....	.....	.....	.....	.....
Price, Tees, 4-Way.....ea.	.....	.....	.....	.50	.70	1.00	1.35	1.80	.....	.....	.....	.....	.....
Price, Crosses.....ea.	.20	.30	.40	.50	.60	.80	1.50	2.00	3.50	5.00	7.00	10.00	14.50
Price, Crosses, Reducing...ea.	.....	.38	.50	.65	.75	1.00	1.90	2.50	4.40	6.25	8.75	12.50	18.00
Price, Unions, Ground Joint, ea.	.32	.36	.50	.70	.90	1.25	1.70	2.50	3.60	6.00	7.75	15.00	22.50
Price, Bushings. ..... ea.	.....	.10	.12	.14	.21	.38	.50	.67	1.00	1.50	2.50	.....	.....
Price, Plugs .....ea.	.09	.10	.12	.15	.20	.28	.40	.50	.90	1.25	2.00	3.00	4.00
Price, Caps.....ea.	.15	.15	.20	.25	.35	.45	.60	.80	1.10	2.00	3.00	.....	.....
Price, Lock-nuts.....ea.	.10	.10	.12	.15	.20	.30	.45	.70	.95	1.50	2.75	.....	.....
Price, Reducers.....ea.	.....	.16	.22	.32	.45	.65	.90	1.12	1.85	3.00	4.50	.....	.....
Price, Couplings.....ea.	.10	.14	.16	.25	.37	.50	.60	.90	1.35	2.40	3.50	5.25	7.00
Price, Couplings, Right and Left, ea.	.....	.17	.20	.30	.45	.60	.75	1.12	1.75	.....	.....	.....	.....
Price, Return Bends, Close, ea.	.....	.....	.....	.56	.70	1.00	1.70	2.20	3.00	.....	.....	.....	.....
Price, Return Bends, Open, ea.	.....	.....	.....	.70	.88	1.25	2.15	2.75	3.75	.....	.....	.....	.....
Price, Nipples, Close...ea.	.12	.15	.20	.25	.30	.40	.60	.90	1.25	2.50	3.50	.....	.....
Price, Nipples, Short...ea.	.14	.18	.25	.30	.38	.50	.75	1.10	1.45	2.75	4.00	.....	.....
Price, Nipples, Long...ea.	.15	.20	.30	.35	.45	.60	.90	1.25	1.60	3.00	4.50	.....	.....

The lengths of Nipples listed above are the same as lengths given for Iron Pipe Nipples on page 69.

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FINISHED BRASS FITTINGS.

THE W. M. PATTISON SUPPLY CO. CLEVELAND

Iron Pipe Size.

ELBOW.

FIG 120.

TEE.

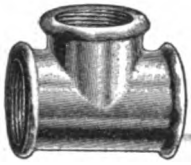

FIG. 121.

UNION.

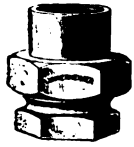

FIG. 122.

Size ..... inches	⅛	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4
Price, Elbows .....ea.	.24	.34	.42	.56	.70	1.00	1.70	2.20	3.00	7.00	9.00	14.00	20.00
Price, Elbows, Reducing...ea.	.....	.44	.52	.70	.90	1.25	2.20	2.80	3 80	8.80	11.30	17.50	25.00
Price, Elbows, 45°.....ea.	.....	.42	.50	.68	.85	1.25	2.10	2.75	3.75	8·75	11.00	.....	.....
Price, Elbows, Street...ea.	.....	....	.56	.83	1.10	1.50	2.65	3.60	4 75	.....	.....	.....	.....
Price, Elbows, Drop Female.ea.	.....	.40	.60	.80	1.20	1.70	2.40	3.80	5.00	.....	.....	.....	.....
Price, Elbows, Side Outlet..ea.	.....	....	.60	.80	1.20	1.70	2.40	3.20	.....	.....	.....	.....	.....
Price, Tees.....ea.	.30	.40	.60	.80	1.00	1.50	2.00	2.60	3.50	8.00	11.00	18.00	26.00
Price, Tees, Reducing..ea.	.....	.50	.76	1.00	1.25	1.90	2.50	3.30	4.40	10.00	13.80	22.50	32.50
Price, Tees, Drop Female...ea.	.....	....	.70	.90	1.40	2.10	.....	.....	.....	.....	.....	.....	.....
Price, Tees, 4-way.....ea.	.....	.....	.....	1.00	1.40	2.00	2.70	3.60	.....	.....	.....	.....	.....
Price, Crosses.....ea.	.40	.60	.80	1.00	1.20	1.60	3 00	4.00	7.00	10.00	14.00	20.00	29.00
Price, Crosses, Reducing..ea.	.....	.75	1.00	1.30	1.50	2.00	3.80	5.00	8.80	12.50	17.50	25.00	36.00
Price, Unions, Ground Joint, Hexagon End..ea.	.32	.36	.50	.70	.90	1.25	1.70	2.50	3.60	6.00	7.75	15.00	22.50
Price, Bushings..... .ea.	.....	.20	.24	.28	.42	.76	1.00	1.35	2.00	3.00	5.00	.....	.....
Price, Plugs.....ea.	.18	.20	.24	.30	.40	.56	.80	1.00	1.80	2.50	4.00	6.00	8.00
Price, Caps.....ea.	.30	.30	.40	.50	.70	.90	1.20	1.60	2.20	4.00	6.00	.....	.....
Price, Lock-nuts.....ea.	.20	.20	.24	.30	.40	.60	.90	1.40	1.90	3.00	5.50	.....	.....
Price, Reducers.....ea.	.....	.32	.44	.64	.90	1.30	1.80	2.25	3.70	6.00	9.00	.....	.....
Price, Couplings.....ea.	.20	.28	.32	.50	.75	1.00	1.20	1.80	2.70	4.80	7.00	10.50	14.00
Price, Couplings, Right & Left..ea.	.....	.31	.36	.55	.82	1.10	1.35	2.00	3.10	.....	.....	.....	.....
Price, Return Bends, Close.....ea.	.....	.....	.....	1.12	1.40	2.00	3.40	4.40	6.00	.....	.....	.....	.....
Price, Return Bends, Open.....ea.	.....	.....	.....	1.40	1.75	2.50	4.30	5.50	7.50	.....	.....	.....	.....

Finished and Nickel Plated Brass Fittings.

Above Fittings will be made to order nickel plated at an advanced price.

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EXTRA HEAVY BRASS FITTINGS.

ELBOW.

FIG. 123.

Made from Cast Iron Fitting Patterns

TEE.

FIG. 124

Size.....inches	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4
Price, Elbows.....each	.28	.36	.70	1.00	1.50	2.00	3.00	5.50	8.50	12.50	16.00
Price, Elbows, Reducing.....each	.32	.42	.80	1.15	1.72	2.30	3.45	6.30	9.75	14.50	18.50
Price, Elbows, 45°.....each	.....	.43	.84	1.20	1.80	2.40	3.60	6.60	10.20	15.50	20.00
Price, Tees.....each	.40	.65	1.00	1.35	2.00	3.00	4.50	7.50	11.00	16.50	20.00
Price, Tees, Reducing.....each	.46	.75	1.15	1.55	2.30	3.45	5.20	8.60	12.65	18.00	22.00
Price, Crosses.....each	.....	.90	1.30	1.80	2.75	4.00	5.25	9.00	14.00	21.00	27.00
Price, Crosses, Reducing.... each	.....	1.04	1.50	2.10	3.15	4.60	6.00	10.35	16.00	24.00	30.00
Price, Return Bends, Close.....each	.....	.70	.85	1.00	2.25	2.75	4.50	.....	.....	.....	.....
Price, Return Bends, Open.....each	.....	.75	1.00	1.75	3.00	3.75	6.00	.....	.....	.....	.....

Finished Brass Fittings from cast iron pattern at double above list.

FLANGE UNION.

FIG. 125.

BRASS FLANGE UNIONS.

Faced, with Iron Bolts.

No Gasket.

Size .....inches	⅛	¾	1	1¼	1½	2	2½	3	3½	4	4½	5	6
Price.....each	3.50	3.50	3.75	4.25	5.60	6.50	8.50	10.50	13.50	15.00	20.00	22.00	27.00
Diameter of Flanges, In.	3	$3\frac{5}{16}$	$3\frac{5}{8}$	$4\frac{1}{4}$	$4\frac{11}{16}$	$5\frac{1}{4}$	$6\frac{1}{16}$	$6\frac{3}{4}$	$7\frac{1}{2}$	$8\frac{1}{8}$	$8\frac{13}{16}$	$9\frac{1}{2}$	$10\frac{3}{4}$
Number of Bolts in Each	3	3	3	4	4	4	4	4	4	5	5	5	6

Seamless Drawn Brass and Copper Tubing.--Iron Pipe Sizes.

Size.....inches	⅛	¼	⅜	½	¾	1	1¼	1½
Approximate Weight per foot, Brass...	.296	.451	.600	.780	1.180	1.750	2.535	3.045
Approximate Weight per foot, Copper	.310	.476	.657	.838	1.259	1.855	2.681	3.166
Price, per pound Over Basis Price, Brass or Copper	.15	.11	.02	.01	(Base Price)			

Size.....inches	2	2½	3	3½	4	5	6
Approximate Weight per foot, Brass.....	4.000	6.323	8.500	9.878	11.719	16.935	21.190
Approximate Weight per foot, Copper..	4.369	6.868	8.979	10.646	12.730	17.309	22.385
Price per pound Over Basis Price, Brass or Copper..	(Base Price.)			.02	.04	.06	.07

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CAST IRON FITTINGS.

STRAIGHT ELBOW. **Straight and Reducing.**

REDUCING ELBOW.

FIG. 126. **Straight Elbows, Black and Galvanized.** FIG. 127.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½
Price, Black..each	.05	.05	.06	.08	.10½	.16	.20	.28	.50	.75	1.05
Price, Galv.. each	.10	.10	.12	.16	.21	.32	.40	.56	1.00	1.50	2.10

Size.....inches	4	4½	5	6	7	8	9	10	12	14	15
Price, Black..each	1.20	1.75	2.00	2.75	4.70	6.75	9.00	13.50	20.00	57.00	70.00
Price. Galv...each	2.40	3.50	4.00	5.50	9.40	13.50	18.00	27.00	40.00	114.00	140.00

Reducing Elbows, Black and Galvanized.

Size.....inches	⅜	½	¾	1	1¼	1½	2	2½	3	3½	.....
Price, Black..each	.06	.07	.09	.12	.18	.23	.32	.60	.85	1.20	.....
Price, Galv...each	.12	.14	.18	.24	.36	.46	64	1.20	1.70	2.40	.....

Size.....inches	4	4½	5	6	7	8	9	10	12	14	15
Price, Black..each	1.40	2.00	2.30	3.15	5.40	7.75	10.50	15.50	23.00	63.00	77.00
Price, Galv...each	2.80	4.00	4.60	6.30	10.80	15.50	21.00	31.00	46.00	126.00	154.00

RIGHT AND LEFT ELBOW.

45° ELBOW.

FIG. 128. **Right and Left Elbows, Black and Galvanized.** FIG. 129.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price, Black.....each	.06	.06	.07	.09	.12	.18	.23	.32	.60	.85
Price, Galvanized..each	.....	.12	.14	.18	.24	.36	.46	.64	1.20	1.70

Size. ..... inches	3½	4	4½	5	6	.....	.....	.....	.....	.....
Price, Black .....each	1.20	1.50	2.25	2.40	3.40	.....	.....	.....	.....	.....
Price, Galvanized..each	2.40	2.80	.....	.....	.....	.....	.....	.....	.....	.....

45° Elbows, Black and Galvanized.

Size.....inches	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4
Price, Black..each	.06	.07	.10	.12	.19	.24	.34	.60	.90	1.25	1.45
Price, Galv...each	.12	.14	.20	.24	.38	.48	.68	1.20	1.80	2.50	2.90

Size ..... inches	4½	5	6	7	8	9	10	12	14	15	.....
Price, Black, each	2.20	2.50	3.45	5.90	8.50	11.25	17.00	25.00	55.00	68.00	.....
Price, Galv...each	4.40	5.00	6.90	11.80	17.00	22.50	34.00	50.00	110.00	136.00	.....

Pitched Elbows.

Size..... .....inches	¾	1	1¼	1½	2	2½	3	3½	4
Price, Black.. .....each	.10	.13	.20	.25	.35	.65	1.00	1.30	1.50

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CAST IRON FITTINGS.

Straight and Reducing.

STRAIGHT TEE.

FIG. 130.

REDUCING TEE

FIG. 131

Straight Tees, Black and Galvanized

Size..... inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½
Price, Black .....each	.08	.08	.09	.12	.15	.23	.29	.41	.73	1.10	1.50
Price, Galv.....each	.16	.16	.18	.24	.30	.46	.58	.82	1.46	2.20	3.00

Size .....inches	4	4½	5	6	7	8	9	10	12	14	15
Price, Black .....each	1.75	2.55	3.00	4.00	6.80	9.75	13.00	19.50	29.00	75.00	90.00
Price, Galv..... each	3.50	5.10	6.00	8.00	13.60	19.50	26.00	39.00	58.00	155.00	180.00

Reducing Tees, Black and Galvanized.

Size ....inches	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4
Price, Black... .....each	.09	.10	.14	.17	.27	.33	.47	.83	1.25	1.75	2.00
Price, Galv .....each	.18	.20	.28	.34	.54	.66	.94	1.66	2.50	3.50	4.00

Size .....inches	4½	5	6	7	8	9	10	12	14	15
Price, Black.....each	2.95	3.50	4.60	7.80	11.25	15.00	22.50	33.50	83.00	100.00
Price, Galv.....each	5.90	7.00	9.20	15.60	22.50	30.00	45.00	67.00	166.00	200.00

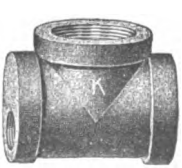

FIG. 132

ECCENTRIC TEES.

Cast Iron

FIG. 133.

Prices on application.

Orders must be accompanied with sketch showing permanent position.

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CAST IRON FITTINGS.

Straight and Reducing.

STRAIGHT CROSS.

FIG. 134.

THE OUTLETS OF A CROSS ARE ALWAYS THE SAME SIZE AND ARE INDICATED BY THE LAST FIGURE.

THUS; A CROSS 2-1/2-2 IS CALLED A 2X2X1 CROSS.

STRAIGHT Y.

FIG. 135.

Straight Crosses, Black and Galvanized.

Size .....inches	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Price, Black.....each	.15	.16	.22	.27	.42	.53	.75	1.30	2.00	2.70	3.15
Price, Galv.....each	.30	.32	.44	.54	.84	1.06	1.50	2.60	4.00	5.40	6.30

Size.....inches	4 1/2	5	6	7	8	9	10	12	14	15
Price, Black .....each	4.60	5.50	7.25	12.25	17.50	23.50	35.00	52.50	110.00	130.00
Price, Galv.....each	9.20	11.00	14.50	24.50	35.00	47.00	70.00	105.00	220.00	260.00

Reducing Crosses, Black and Galvanized.

Size .....inches	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Price, Black.....each	.18	.18	.25	.30	.46	.60	.83	1.45	2.20	3.00	3.50
Price, Galv.....each	.36	.36	.50	.60	.92	1.20	1.66	2.90	4.40	6.00	7.00

Size .....inches	4 1/2	5	6	7	8	9	10	12	14	15
Price, Black.....each	5.00	6.00	8.00	13.50	19.25	26.00	38.50	58.00	120.00	143.00
Price, Galv.....each	10.20	12.00	16.00	27.00	38.50	52.00	77.00	116.00	240.00	286.00

Straight Y's, Black and Galvanized.

Size .....inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2
Price Black.....each	.20	.28	.34	.54	.66	.94	1.66	2.50	3.50	4.00	5.90
Price, Galv.....each	.40	.56	.68	1.08	1.32	1.88	3.32	5.00	7.00	8.00	11.80

Size .....inches	5	6	7	8	9	10	12
Price, Black.....each	7.00	9.20	15.60	22.50	30.00	45.00	67.00
Price, Galv.....each	14.00	18.40	31.20	45.00	.....	90.00	134.00

Reducing Y's, Black and Galvanized.

Size..... inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2
Price, Black.....each	.23	.33	.40	62	.76	1.08	1.90	2.90	4.00	4.60	6.80
Price, Galv.....each	.46	.66	.80	1.24	1.52	2.16	3.80	5.80	8.00	9.20	13.60

Size .....inches	5	6	7	8	9	10	12
Price. Black .....each	8.00	10.60	18.00	26.00	35.00	51.75	77.00
Price, Galv.....each	16.00	21.20	36.00	52.00	70.00	103.00	154.00

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CAST IRON FITTINGS.

Side Outlet, Straight and Reducing.

SIDE OUTLET ELBOW

FIG. 136.

SIDE OUTLET TEE-

FIG. 137.

SIDE OUTLET CROSS.

FIG. 138.

Straight Side Outlet Elbows, Black and Galvanized.

Size.....inches	½	¾	1	1¼	1½	2	2½	3	3½	4	4½
Price, Black, each	.18	.24	.30	.48	.60	.84	1.50	2.25	3.15	3.60	5.25
Price, Galv...each	.36	.48	.60	.96	1.20	1.68	3.00	4.50	6.30	7.20	10.50

Size.....inches	5	6	7	8	9	10	12
Price, Black, each	6.00	8.25	14.00	20.00	26.00	40.00	60.00
Price, Galv..each	12.00	16.50	.....	.....	.....	.....	.....

Reducing Side Outlet Elbows, Black.

Size.....inches	½	¾	1	1¼	1½	2	2½	3	3½	4	4½
Price, Black.each	.21	.28	.35	.55	.68	.96	1.70	2.58	3.60	4.00	6.00

Size.....inches	5	6	7	8	9	10	12
Price, Black, each	6.90	9.45	16.00	23.00	30.00	46.00	70.00

Straight Side Outlet Tee, Black and Galvanized.

Size.....inches	½	¾	1	1¼	1½	2	2½	3	3½	4	4½
Price, Black, each	.27	.36	.45	.70	.90	1.25	2.25	3.25	4.50	5.25	7.65
Price, Galv...each	.54	.72	.90	1.40	1.80	2.50	4.50	6.50	9.00	10.50	15.30

Size.....inches	5	6	7	8	9	10	12
Price, Black, each	9.00	12.00	20.00	30.00	40.00	50.00	90.00
Price, Galv..each	18.00	24.00	.....	.....	.....	.....	.....

Reducing Side Outlet Tees, Black.

Size.....inches	½	¾	1	1¼	1½	2	2½	3	3½	4	4½
Price, Black.each	.31	.42	.52	.80	1.00	1.45	2.58	3.73	5.15	6.00	8.80

Size.....inches	5	6	7	8	9	10	12
Price, Black, each	10.35	13.80	23.00	35.00	46.00	57.00	104.00

Straight Side Outlet Crosses, Black.

Size ..... inches	1	1¼	1½	2	2½	3	3½	4	4½
Price, Black.....each	.60	.95	1.20	1.65	3.00	4.50	6.30	7.20	10.50

Size..... inches	5	6	7	8	9	10	12
Price, Black.....each	12.00	16.50	28.00	40.00	52.00	80.00	120.00

Reducing Side Outlet Crosses, Black.

Size ..... inches	1	1¼	1½	2	2½	3	3½	4	4½
Price, Black.....each	.70	1.00	1.30	1.75	3.20	4.80	6.65	7.75	11.50

Size ..... inches	5	6	7	8	9	10	12
Price, Black..... each	13.00	17.50	30.00	43.00	56.00	86.00	130.00

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CAST IRON FITTINGS.

OFFSET.

Straight and Reducing.

FIG. 139.

Offsets, Black and Galvanized.

Size .....inches	¾	1	1¼	1½	2	2½	3	3½	4	5	6
Price, Black, to offset 1⅞ inches.....ea.	.45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Price, Black, to offset 2½ inches.....ea.	.....	.70	.70	.....	.....	.....	.....	.....	.....	.....	.....
Price, Black, to offset 2⅝ inches.....ea.	.....	.....	.....	1.20	.....	.....	.....	.....	.....	.....	.....
Price, Black, to offset 3½ inches.....ea.	.....	.....	.....	.....	1.80	.....	.....	.....	.....	.....	.....
Price, Black, to offset 3¾ inches.... ea.	.....	.....	.....	.....	.....	3.00	.....	.....	.....	.....	.....
Price, Black, to offset 4 inches.....ea.	.45	.70	1.00	1.20	1.80	3.00	4.00	5.00	6.00	8.00	10.00
Price, Black, to offset 4½ inches.....ea.	.....	.....	.....	.....	.....	.....	4.00	.....	.....	.....	.....
Price, Black, to offset 6 inche s....ea.	.67	1.05	1.50	1.80	2.70	4.50	6.00	7.50	9.00	12.00	15.00
Price, Black, to offset 8 inches.....ea.	.90	1.40	2.00	2.40	3.60	6.00	8.00	10.00	12.00	16.00	20.00
Price, Galv. to offset 4 inches.....ea.	.90	1.40	2.00	2.40	3.60	6.00	8.00	10.00	12.00	16.00	20.00
Price, Galv. to offset 6 inches.....ea.	1.34	2.10	3.00	3.60	5.40	9.00	12.00	15.00	18.00	24.00	30.00
Price, Galv. to offset 8 inches.....ea.	1.80	2.80	4.00	4.80	7.20	12.00	16.00	20.00	24.00	32.00	40.00

REDUCING COUPLING.

Couplings.

ECCENTRIC COUPLING.

FIG. 140. **Reducing Couplings, Black and Galvanized.** FIG. 141.

Size .....inches	2½	3	3½	4	4½	5	6	7	8	9	10	12	14	15
Price, Blk...each	.60	.80	1.00	1.35	1.85	2.00	2.70	5.35	6.75	8.35	10.00	15.00	30.00	40.00
Price, Glv. each	1.20	1.60	2.00	2.70	3.70	4.00	5.40	10.70	13.50	16.70	20.00	30.00	60.00	80.00

Eccentric Couplings, Black.

Size..... inches	2 x 1½	2½ x 1½	2½ x 1½	2½ x 2	3 x 2	3 x 2½	3½ x 3	3½ x 2½	4 x 3½	4 x 3	5 x 4	6 x 4
Price, Blk. each	1.00	1.50	1.50	1.50	2.40	2.40	3.00	3.00	4.00	4.00	6.00	8.00

CAP.

Caps and Locknuts.

LOCKNUT.

FIG. 142. **Caps, Black and Galvanized.** FIG. 143.

Size.....inches	2	2½	3	3½	4	4½	5	6	7	8	9	10	12	14	15
Price, Blk...ea	.26	.40	.54	.75	.87	1.05	1.20	1.55	2.50	2.85	4.75	5.50	7.00	19.00	22.00
Price, Glv...ea	.52	.80	1.08	1.50	1.74	2.10	2.40	3.10	5.00	5.70	9.50	11.00	14.00	38.00	44.00

Locknuts, Black and Galvanized.

Size.....inches	2	2½	3	3½	4	4½	5	6	7	8	9	10	12	14	15
Price, Blk..ea	.25	.27	.34	.47	.64	.85	.90	1.30	1.70	2.35	2.70	3.00	4.00	7.00	9.00
Price, Glv..ea	.50	.54	.68	.94	1.28	1.70	1.80	2.60	3.40	4.70	5.40	6.00	8.00	14.00	18.00

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CAST IRON FITTINGS.

Return Bends

CLOSE PATTERN RETURN BEND.

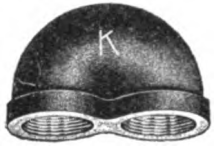

FIG. 144.

OPEN PATTERN RETURN BEND.

FIG. 145

Close Pattern, Black and Galvanized.

Size..... inches	¼	⅜	1	1¼	1½	2	2½	3
Price, Right Hand, Black....each	.18	.20	.22	.28	.40	.57	1.20	1.70
Price, Right and Left, Black..each	.21	.23	.26	.33	.46	.66	1.40	1.95
Price, Left Hand.....each	.21	.23	.26	.33	.46	.66	1.40	1.95
Price, Right Hand, Galv.....each	.36	.40	.44	.56	.80	1.14	2.40	3.40
Center to Center.....inches	1¼	1½	1¾	2¼	2½	3¼	3¾	4¼

Open Pattern, Black and Galvanized.

Size..... inches	⅜	1	1¼	1½	2	2½	3
Price, Right Hand, Black.....each	.26	.30	.40	.55	.80	1.35	2.20
Price, Right and Left, Black....each	.30	.35	.46	.64	.92	1.55	2.50
Price, Right Hand, Galvanized.each	.52	.60	.80	1.10	1.60	2.70	4.40
Center to Center..... inches	1⅞	2⅜	3	3½	4½	5½	6½

Close Pattern, Pitched.

For Coils as per Table Below.

Size.....inches	1	1	1	1	1	1¼	1¼	1¼
Length of Pipe in Coil.....feet	3	4	5	6	8	4	5	6
Price, Right Hand, Black...each	.26	.26	.26	.26	.26	.33	.33	.33
Price, Right and Left, Black..each	.26	.26	.26	.26	.26	.33	.33	.33

All Right and Left Pitched Return Bends are made to order.

One inch Return Bends for coils longer than 8 feet are tapped straight.

Pitched Return Bends have length of coil marked on them.

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CAST IRON FITTINGS.

Return Bends

WIDE PATTERN RETURN BEND.

FIG. 146.

BACK OUTLET RETURN BEND.

FIG. 147.

Wide Pattern, Black and Galvanized.

Size.....inches	1	1	1	1	1	1¼	1½	1½
Price, Black.....each	.45	.50	.60	.75	1.00	1.00	1.25	1.30
Price, Galvanized...each	.80	.90	1.10	1.30	1.60	1.75	2.00	2.30
Center to Center..inches	3	4	5	6	8	4	6	4⅞

Size.....inches	1½	1½	2	2	2	2	4	4
Price, Black.....each	1.60	2.00	1.75	2.00	3.00	3.50	6.50	7.50
Price, Galvanized...each	2.60	3.25	3.00	3.25	4.50	5.00	10.00	11.00
Center to Center..inches	6	8	4⅞	6	7	8	7½	11

Special Pattern.

Size.....inches	1	1	2	2	2½	2½	3
Center to Center.....inches	4 3/16	4½	2⅞	3	4½	5½	6½

Made to order only. Prices on application.

Back Outlet, Black and Galvanized.

Size ..... inches	¾	1	1¼	1½	2	2½	3
Price, Right Hand, Black, each	.38	.42	.60	.80	1.15	2.00	3.00
Price, Right and Left, Black, each	.42	.48	.70	.95	1.30	2.30	3.50
Price, Right Hand, Galv...each	.76	.84	1.20	1.60	2.30	4.00	6.00
Center to Center.....inches	1⅞	2¼	2¼	2½	3¼	3¾	4¼

The back outlet of Right and Left Return Bends is always tapped right hand.

Special Pattern, Back Outlet.

Size..... inches	1	1¼	1¼	1½	2
Center to Center ....inches	4	2 9/16	3¼	4	4
Size, Back Outlet.....inches	1¼	1½	1½	1½	1½

Made to order only. Prices on application.

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CAST IRON FITTINGS.

Flanges.

COMMON FLANGE

FIG. 148.

COMMON FLANGE DRILLED FOR SCREW.

FIG. 149.

CURVED FLANGE.

FIG. 150.

Size.....inches	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4
Diam. of Flange 3 in.	*.10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diam. of Flange 3½ in.	.....	*.15	*.15	.....	.....	.....	.....	.....	.....	.....	.....
Diam. of Flange 4 in.	.....	.....	.22	*.16	*.16	.....	.....	.....	.....	.....	.....
Diam. of Flange 4½ in.	.....	.....	.....	.....	.25	*.22	.....	.....	.....	.....	.....
Diam. of Flange 5 in.	.....	.....	.30	.30	.30	.30	.....	.....	.....	.....	.....
Diam. of Flange 5½ in.	.....	.....	.....	.....	.....	.....	*.35	.....	.....	.....	.....
Diam. of Flange 6 in.	.....	.....	.....	.42	.40	.40	.42	.42	.....	.....	.....
Diam. of Flange 6½ in.	.....	.....	.....	.....	.....	.....	.50	.50	.50	.....	.....
Diam. of Flange 7 in.	....	.....	.....	....	.....	.....	.62	.62	.62	.....	.....
Diam. of Flange 7½ in.	.....	.....	.....	.....	.....	.....	.....	.....	.75	.....	.....
Diam. of Flange 8 in.	.....	.....	.....	.....	.....	.....	.90	.90	.90	.90	.90
Diam. of Flange 8½ in.	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.00	1.00
Diam. of Flange 9 in.	.....	.....	.....	.....	.....	.....	.....	.....	1.15	1.15	1.15
Diam. of Flange 9½ in.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diam. of Flange 10 in.	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.50	1.50

Size.....inches	4½	5	6	7	8	9	10	12	14	15	16
Diam. of Flange 9 in.	1.15	.....	.....	.....	....	.....	.....	.....	....	.....	.....
Diam. of Flange 9¼ in.	1.25	.....	.....	.....	....	.....	.....	.....	.....	.....	.....
Diam. of Flange 10 in.	1.50	1.50	1.50	.....	.....	.....	.....	.....	.....	.....	.....
Diam. of Flange 11 in.	1.75	1.75	1.75	.....	.....	.....	.....	.....	.....	.....	.....
Diam. of Flange 12 in.	.....	2.20	2.20	2.20	.....	.....	....	.....	.....	.....	.....
Diam. of Flange 12½ in.	.....	2.20	2.20	2.20	.....	.....	.....	.....	.....	.....	.....
Diam. of Flange 13 in.	.....	.....	2.80	2.80	2.80	..	.....	....	.....	.....	.....
Diam. of Flange 13½ in.	.....	.....	2.80	2.80	2.80	....	.....	.....	.....	.....	.....
Diam. of Flange 14 in.	.....	.....	3.25	3.25	3.25	.....	.....	.....	....	.....	.....
Diam. of Flange 15 in.	.....	.....	.....	4.00	4.00	4.00	....	.....	.....	.....	.....
Diam. of Flange 16 in.	.....	.....	....	.....	5.00	5.00	5.00	.....	.....	.....	.....
Diam. of Flange 17 in.	.....	.....	.....	.....	.....	5.75	5.75	.....	.....	.....	.....
Diam. of Flange 18 in.	.....	.....	.....	.....	.....	.....	7.00	7.00	.....	.....	.....
Diam. of Flange 19 in.	.....	.....	.....	.....	.....	.....	7.50	7.50	.....	.....	.....
Diam. of Flange 20 in.	.....	.....	.....	.....	.....	.....	.....	8.50	8.50	.....	.....
Diam. of Flange 21 in.	.....	.....	.....	.....	.....	....	.....	.....	9.50	9.50	.....
Diam. of Flange 22½ in.	.....	.....	.....	.....	....	.....	.....	.....	.....	14.00	.....
Diam. of Flange 23½ in.	.....	.....	....	....	.....	.....	....	.....	.....	.....	18.00

Those marked * are drilled for screw.

Curved Flanges made to order. Price on application
Galvanized Flanges double the above list.
For list of Blind Flanges see page 90.

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CAST IRON FITTINGS.

Flange Unions.

CAST IRON.

FIG. 151.

Cast and Malleable Iron Faced, No Gaskets.

MALLEABLE IRON.

FIG. 152.

Cast Iron, Black and Galvanized.

Size .....inches	½	¾	1	1¼	1½	2	2½
Price, Black..... each	.40	.46	.52	.64	.78	1.00	1.25
Price, Galvanized.....each	.80	.92	1.04	1.28	1.56	2.00	2.50
Diameter of Flanges....inches	3	3 5/16	3⅝	4⅛	4 11/16	5¼	6 1/16
Number of Bolts in each.....	3	3	3	4	4	4	4

Size .....inches	3	3½	4	4½	5	6	7
Price, Black.....each	1.50	1.80	2.10	2.70	3.15	3.95	5.50
Price, Galvanized.....each	3.00	3.60	4.20	5.40	6.30	7.90	11.00
Diameter of Flanges.....inches	6¾	7½	8⅝	8 13/16	9½	10¾	12
Number of Bolts in each.....	4	4	5	5	5	6	7

Size .....inches	8	9	10	12	14	15	16
Price, Black.....each	7.00	10.00	11.50	16.00	28.00	35.00	60.00
Price, Galvanized.....each	14.00	20.00	23.00	32.00	56.00	70.00	.....
Diameter of Flanges.....inches	13¼	14¼	16	18¼	20¾	20¾	23
Number of Bolts in each.....	8	9	10	12	14	14	16

Malleable Iron, Black and Galvanized.

Size .....inches	¾	1	1¼	1½	2	2½	3
Price, Black.....each	1.40	1.60	2.00	2.50	3.00	3.50	4.40
Price, Galvanized.....each	2.80	3.20	4.00	5.00	6.00	7.00	8.80
Diameter of Flanges.....inches	2⅞	3¼	3¾	4½	5⅜	5⅞	6¾
Number of Bolts in each.....	3	4	4	4	4	4	4

Size .....inches	3½	4	4½	5	6	8	.....
Price, Black.....each	5.25	6.00	7.00	8.00	9.00	18.00	.....
Price, Galvanized.....each	10.50	12.00	14.00	16.00	18.00	36.00	.....
Diameter of Flanges.....inches	7⅜	8	8½	9⅛	10½	13	.....
Number of Bolts in each.....	4	5	5	5	6	7	.....

Dart and Jefferson Flange Unions, Bronze Metal Ball Bearing Seats.

Size.....inches	½	¾	1	1¼	1½	2	2½	3
Price.. .....each	.50	.60	.80	1.20	1.60	2.00	3.20	4.80

Size .....inches	3½	4	5	6	7	8	9	10
Price.. ... .each	6.00	7.50	10.00	12.50	15.00	18.00	21.60	28.80

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CAST IRON FITTINGS.

Branch Tees.

FOR CIRCULATION.

FIG. 153.

FIG. 154. OPEN

FOR BOX COILS.

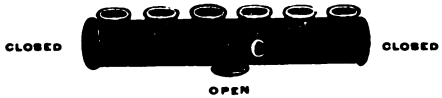

FIG. 155.

No. of Branches.	1-IN. BRANCH TEES. 2½-IN. CENTER TO CENTER. 1 in. or 1¼ In. Run.	1¼ in Run.	2 in. Run	1¼-IN. BRANCH TEES. 3-IN. CENTER TO CENTER. 1¼ in or 1½ Run.	2 in. Run.	2½ in. Run.	1½-IN. BRANCH TEES. 3½ IN CENTER TO CENTER. 1½ in or 2 in. Run.	2½ in Run.	3 in. Run.	2-IN. BRANCH TEES. 4½ IN. CENTER TO CENTER. 2 in. Run.	2½ in. or 3 in. Run.	3½ in. Run.
2	.90	1.00	1.15	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	1.05	1.15	1.35	1.65	1.90	2.40	2.70	3.45	3.80	5.25	5.75	6.25
4	1.15	1.30	1.60	2.00	2.40	2.85	3.35	4.15	4.60	6.40	7.00	7.75
5	1.35	1.45	1.85	2.40	2.90	3.55	4.00	5.00	5.50	7.65	8.50	9.25
6	1.60	1.75	2.10	2.80	3.30	3.95	4.65	5.75	6.25	8.80	9.75	10.75
7	1.90	2.20	2.45	3.20	3.90	4.20	5.25	6.50	7.25	10.60	11.75	13.00
8	2.20	2.45	2.75	3.60	4.50	4.95	5.85	7.00	7.75	11.50	12.75	14.00
9	2.65	2.90	3.40	4.30	5.25	6.15	6.50	8.25	9.00	12.25	13.50	15.00
10	.....	3.30	4.00	4.80	5.85	6.85	7.60	9.25	10.00	13.50	15.00	16.50
11	.....	4.50	4.80	5.00	6.25	7.25	8.00	9.75	10.75	.....	.....	.....
12	.....	4.75	5.10	5.25	6.50	7.65	8.50	10.50	11.50	.....	.....	.....
13	.....	5.50	6.00	6.00	7.00	8.25	.....	.....	.....	.....	.....	.....
14	.....	7.00	7.25	6.75	7.75	9.00	.....	.....	.....	.....	.....	.....
15	.....	7.50	7.75	7.50	8.50	9.75	.....	.....	.....	.....	.....	.....
16	.....	8.00	8.25	8.50	9.50	10.75	.....	.....	.....	.....	.....	.....

All openings in Branch Tees for Circulation are tapped right hand.

Branch Tees for Box Coils are always tapped left hand in branches and right hand in back inlet.

The run and back opening of Branch Tees are tapped the same size as branches, unless otherwise ordered.

1 inch Branch Tees, 1 inch or 1¼ inch run, are 1¾ inches inside diameter.

1 inch Branch Tees, 1½ inch or 2 inch run, are 2¼ inches inside diameter.

1¼ inch Branch Tees are all 2½ inches inside diameter.

1½ inch Branch Tees are all 2¾ inches inside diameter

2 inch Branch Tees are all 3½ inches inside diameter.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CAST IRON FITTINGS.

O. S. Fittings.

DISTRIBUTING FITTING.

FIG. 156.

CIRCUIT FITTING.

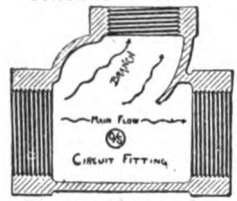

FIG. 157

Distributing Fittings.

Size ..... inches	1	1¼	1½	2	2½	.....	.....	.....
Price .. ..each	.60	.80	.90	1.20	2.00	.....	.....	.....

Circuit Fittings.

Size.....inches	1	1¼	1½	2	2½	3	3½	4
Price.....each	.60	.80	.90	1.20	2.00	3.00	4.00	4.75

List of Sizes of Distributing Fittings.

1 x ¾ x ¾	1¼x1¼x1	1½x1¼x1¼	2 x1½x1½
1 x ¾x1	1¼x1¼x1¼	1½x1½x1¼	2 x2 x2
1 x1 x ¾	1½x1¼x1	1½x1½x1½	2½x1½x1½
1 x1 x1	1½x1 x1¼	2 x1¼x1½	2½x2 x1½
1¼x1 x1	1½x1¼x1¼	2 x1¼x1¼	2½x2 x2
1¼x1 x1¼	.....	.....	.....

List of Sizes of Circuit Fittings.

1 x1 x1	2 x2 x1¼	2½x2½x2	3½x3½x2
1¼x1¼x1¼	2 x2 x1½	3 x3 x1¼	3½x3½x2½
1½x1½x1½	2½x2½x1	3 x3 x1½	4 x4 x1½
1½x1½x1	2½x2½x1¼	3 x3 x2	4 x4 x2
1½x1½x1¼	2½x2½x1½	3½x3½x1½	4 x4 x2½
2 x2 x1	.....	.....	.....

FIG. 158

McDaniel Suction Tees.

Size ....inches	¾	1	1¼	1½	2	2½	3
Price..... each	.80	1.00	1.25	1.50	2.00	2.50	3.00

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CAST IRON FITTINGS.

Hook and Expansion Plates

SINGLE HOOK

CAST IRON HOOK PLATE. FIG. 159. STEEL HOOK PLATE.

FIG. 160. **Cast Iron Hook Plates.** FIG. 161.

Number of Hooks.....	1	2	3	4	5	6	7	8	9	10	11	12
Price, for ¾ in. Pipe, 2 in. C. to C...ea.	.08	.16	.21	.24	.28	.34	.40	.45	.50	.56	.68	.72
Price, for 1 in. Pipe, 2½ in. C. to C...ea.	.09	.18	.23	.26	.32	.38	.48	.59	.65	.70	.85	1.00
Price, for 1¼ in. Pipe, 3 in. C. to C...ea.	.10	.21	.27	.32	.41	.52	.68	.80	.90	1.20	1.35	1.40
Price, for 1½ in. Pipe, 3½ in. C. to C...ea.	.15	.28	.43	.58	.72	.88	1.10	1.25	1.40	1.55	1.65	1.90
Price, for 2 in. Pipe, 4½ in. C. to C...ea.	.22	.43	.65	.90	1.15	1.35	2.10	2.40	2.60	2.65	2.75	2.80

Steel Hook Plates.

Number of Hooks.....	1	2	3	4	5	6	7	8	9	10	11	12
Price, for ¾ in. Pipe, 2 in. C. to C...ea.	.08	.16	.21	.24	.28	.34	.40	.45	.50	.56	.68	.72
Price, for 1 in. Pipe, 2½ in. C. to C...ea.	.09	.18	.23	.26	.32	.38	.48	.59	.65	.70	.85	1.00
Price, for 1¼ in. Pipe, 3 in. C. to C...ea.	.10	.21	.27	.32	.41	.52	.68	.80	.90	1.20	1.35	1.40
Price, for 1½ in. Pipe, 3½ in. C. to C...ea.	.15	.28	.43	.58	.72	.88	1.10	1.25	1.40	1.55	1.65	1.90

Steel Hook Plates can be readily converted to Expansion Plates by straightening the hooks.

EXPANSION HOOK PLATE.

BEAM HOOK.

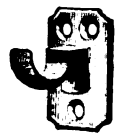

FIG. 162. **Cast Iron Expansion Plates.** FIG. 163.

Number of Hooks.....	1	2	3	4	5	6	7	8	9	10	11	12
Price, for ¾ in. Pipe, 2 in. C. to C...ea.	.12	.23	.34	.45	.55	.65	.77	.90	1.05	1.25	1.45	1.65
Price, for 1 in. Pipe, 2½ in. C to C...ea.	.15	.25	.35	.50	.60	.70	.80	.95	1.10	1.35	1.55	1.70
Price, for 1¼ in. Pipe, 3 in. C. to C...ea.	.17	.27	.40	.60	.70	.80	.90	1.15	1.30	1.50	1.70	2.00
Price, for 1½ in Pipe, 3½ in. C. to C...ea.	.25	.40	.60	.75	.90	1.00	1.25	1.50	1.75	2.00	2.25	2.50

Beam Hooks, Long Shank.

Size .....inches	½	¾	1	1¼	1½	2	2½	3
Price.....each	.13	.15	.18	.22	.24	.35	.65	.90

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CAST IRON FITTINGS

RING HOOK.

FIG. 164.

LAUNDRY COIL STAND.

FIG. 165.

Ring Plates.

Number of Hooks.	1	2	3	4	5	6	7	8	9	10	11	12
Price, for ¾ in. Pipe, 2 in. C. to C...ea.	.....	.28	.41	.50	.62	.72	.96	1.00	1.20	1.30	1.35	1.50
Price, for 1 in. Pipe, 2½ in. C. to C...ea.	.16	.28	.41	.50	.62	.72	.96	1.00	1.20	1.30	1.40	1.50
Price, for 1¼ in. Pipe, 3 in. C. to C...ea.	.21	.35	.50	.62	.75	1.10	1.25	1.40	1.60	2.00	2.20	2.40
Price, for 1½ in. Pipe, 4 in. C. to C...ea.	.30	.40	.70	.90	1.00	1.30	1.40	1.60	1.80	2.20	2.60	3.00

Laundry Coil Stands, with Movable Hook Plates.

Price, for Four Pipes high, for 1 inch Pipe.....each	2.00
Price, for Six Pipes high, for 1 inch Pipe.....each	2.75
Price, for Eight Pipes high, for 1 inch Pipe.....each	3.50
Price, for Ten Pipes high, for 1 inch Pipe.....each	4.25
Price, Extra Hooks complete, for 1 inch Pipe.....each	.06
Price, Extra Hooks complete, for 1¼ inch Pipe.....each	.08
Price, Extra Hooks complete, for 1½ inch Pipe.....each	.10
Price, Extra Hooks complete, for 2 inch Pipe.....each	.15

HANGER ROLL.

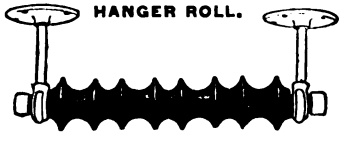

FIG. 166.

PIPE SADDLE.

FIG. 167.

Hanger Rolls.

Size.....inches	1	1¼	1½	2	2½	3	3½	4	4½	5	6	7	8	10	12	14
Price, Rolls only.each	.06	.07	.08	.12	.12	.12	.21	.21	.24	.24	.27	.36	.44	.72	1.05	1.32

Pipe Saddles.

Number of Branches.....	3	4	5	6	7	8	9	10
Price, for 1 inch Pipe, 2½ inches C. to C.....each	.60	.65	.70	.90	1.00	1.40	1.60	1.75
Price, for 1¼ inch Pipe, 3 inches C. to C.....each	.65	.75	.85	1.10	1.40	1.65	1.80	2.00

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CRANE'S EXPANSION PIPE HANGERS

SECTIONAL PIPE HANGER

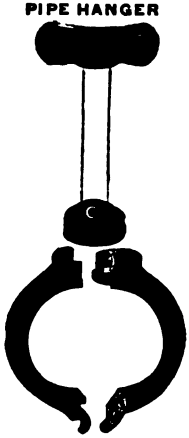

FIG. 168.

SECTIONAL PIPE HANGER WITH BEAM CLAMP.

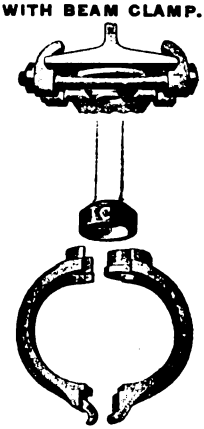

FIG. 169.

RING PIPE HANGER.

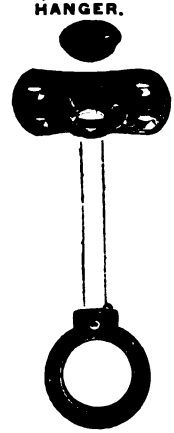

FIG. 170.

Sectional Pipe Hangers.

Size.....inches	¾	1	1¼	1½	2	2½	3	3½	4	5	6
Price.....each	.32	.33	.35	.45	.55	.65	.80	1.00	1.15	2.00	2.50
Size of Pipe, Rings and Buttons are Tapped for, In	⅛	⅛	¼	⅜	⅜	⅜	½	½	½	¾	¾

Beam Clamps for Sectional Pipe Hangers.

Size of Beam Flange.....inches	3½	4	4½	5	6	8
Price, per pair, Clamps only, without Bolts.....each	.25	25	.25	.25	.25	.25

These clamps are suitable for beam flanges 3½ inch to 8 inch, and are drilled for ⅜ inch bolts, which are furnished by the fitter, according to the length required to fit the various size beams.

Ring Pipe Hangers.

Size.....inches	¾	1	1¼	1½	2	2½	3	3½	4	4½	5	6	7	8
Price, Complete.....each	.17	.18	.19	.25	.29	.36	.44	.55	.63	.90	1.12	1.35	1.80	2.25
Size of Pipe, Rings and Buttons are Tapped for....Inches	⅜	⅜	⅜	⅜	⅜	½	½	½	½	½	½	½	½	½

Parts of Ring Pipe Hangers.

Size.....inches	¾	1	1¼	1½	2	2½	3	3½	4	4½	5	6	7	8
Price, Plates,.each	.08	.08	.08	.09	.09	.10	.10	.10	.10	.10	.10	.10	.10	.10
Price, Buttons.....each	.06	.06	.06	.07	.07	.08	.08	.08	.08	.08	08	.08	.08	.08
Price, Rings...each	.08	.12	.15	.20	.25	.30	.40	.50	.60	.80	1.00	1.25	1.70	2.15

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GRABLERS UNIVERSAL PIPE HANGERS AND BEAM CLAMPS.

STYLE A, WITH LAG SCREW.

FIG. 171.

STYLE B, WITH BEAM PLATE.

FIG. 172.

STYLE D, END CAN BE BENT ANY ANGLE.

FIG. 173.

BEAM CLAMP.

FIG. 174.

Grablers Universal Pipe Hangers, with 4 inch Bars.

Size, inches.....	¾	1	1¼	1½	2	2½	3	3½	4	5	6	7	8	9	10	11	12
Price, Style A, compl. ea.	.20	.22	.24	.28	.30	.32	.40	.44	.48	.54	.60	.95	1.25	1.60	1.90	2.20	2.50
Price, Style B, compl. ea.	.20	.20	.22	.24	.28	.30	.32	.40	.44	.48	.54	.78	1.02	1.25	1.50	1.75	2.00
Price, Style D, compl. ea.	.16	.18	.20	.22	.24	.26	.28	.32	.34	.38	.42	.65	.90	1.15	1.40	1.60	1.90
Price, Style F, compl. ea.	.18	.20	.22	.24	.28	.30	.32	.38	.43	.48	.53	.85	1.10	1.35	1.65	2.00	2.30

Style F Hanger, has Lag Screw, and is used where a small drop is required.

Grablers Beam Clamps.

Number.....	1	2	3	4	5
For Pipe.....inches	½ to 1½	2 to 3	3½ to 6	7 to 8	9 to 12
Price .....each	.25	.30	.35	.50	.70

Parts of Grablers Hangers.

For Pipe.....inches	½ to 1½	2 to 3	3½ to 6	7 to 8	9 to 12	.....
Price, Extension Bars, per foot	.08	.09	.10	.20	.28	.....
For Pipe.....inches	.....	.....	.....	¾ to 1½	2 to 3	3½ to 6
Price, Extra Lag Screws.....each	.....	.....	.....	.12	.14	.16

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CLARKS ADJUSTABLE PIPE HANGERS AND BEAM CLAMPS.

PIPE HANGER. **Malleable Iron.** BEAM CLAMP.

FIG. 175.

FIG. 176.

Clarks Adjustable Pipe Hangers.

Size ..... inches	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	7	8
Price, Hangers only.....each	.08	.08	.10	.12	.14	.16	.20	.24	.28	.34	.42	.56	.74	.94	1.16
Price, Hangers with Nut and Bolt, each	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Size of Pipe or Lag Screw to use with Hangers.....	¼ in. Pipe. ⅜ in. Lag Screw	¼ in. Pipe. ½ in. Lag Screw	¾ in. Pipe. ⅜ in. Lag Screw	½ in. Pipe. ½ in. Lag Screw

Clarks Adjustable Beam Clamps.

Price.....each	Opening from 2 to 5 in.	.40	Opening from 5 to 8 in	.50

Beam Clamps are made for Pipe or Lag Screws corresponding to Hangers; can also be furnished with Hook when desired.

GRABLER'S UNIVERSAL HOOK. PIPE STRAP GAS HOOK.

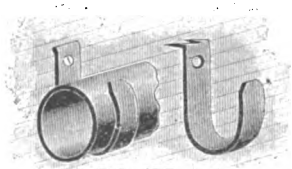

FIG. 177.

FIG. 178.

FIG. 179.

Grablers Universal Pipe Hooks.

Size ..... inches	¾	1	1¼	1½	2
Price	.06	.07	.08	.09	.10

Galvanized Pipe Straps.

Size.....inches	¼	⅜	½	¾	1	1¼	1½
Price.....per pound	.18	.18	.18	.18	.18	.18	.18

Gas Hooks.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2
Price.....per hundred	.30	.35	.40	.50	.65	.85	1.00	1.10

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FLOOR AND CEILING PLATES.

CLOSED.

FIG. 180.

OPEN.

FIG. 181.

Russells Adjustable Spring Brass Floor and Ceiling Plates.

Size.....inches	⅜	½	¾	1	1¼	1½	2	2½	3
Price, Nickel Plated.....each	.25	.25	.25	.28	.32	.35	.38	.52	.75

CLOSED.

FIG. 182.

OPEN.

FIG. 183.

Russells Adjustable Cold Rolled Steel Floor and Ceiling Plates.

Size.....inches	½	¾	1	1¼	1½	2	2½	3
Price, Polished.....each	.12	.12	.15	.18	.20	.24	.40	.60
Price, Nickel Plated.....each	.25	.25	.28	.32	.35	.38	.52	.75

No. 1.

FIG. 184.

No. 8.

FIG. 185.

Beatons Adjustable Floor and Ceiling Plates.

Size.....inches	½	¾	1	1¼	1½	2	2½	3	3½	4	4½	5	6
Price, No. 1. Black.....each	.14	.14	.18	.20	.24	.28	.43	.60	.90	1.25	1.50	1.60	2.00
Price, No. 1. Nickel Plated ...each	.25	.25	.28	.32	.35	.38	.52	.75	1.10	1.50	1.75	2.00	2.50
Price, No. 8. Nickel Plated ...each	.25	.25	.28	.32	.35	.38	.52	.75	1.10	1.50	.....	.....	.....

FLOOR PLATE.

FIG. 186.

CEILING PLATE.

FIG. 187.

Worcester Spun Brass Floor and Ceiling Plates.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2
Price, Nickel Plated.....each	.08	.08	.09	.10	.11	.12	.13	.15

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FLOOR AND CEILING PLATES.

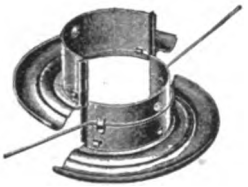

FIG. 188.

H. B. Perfection Brass Ceiling Plates.

Size .....inches	¾	1	1¼	1½	2	2½	3
Price, Nickel Plated .....each	.25	.28	.32	.35	.38	.52	.75

CRANES CEILING PLATE.

FIG. 189.

Cast Iron.

CEILING PLATES, IN ONE PIECE.

FIG. 190.

Cranes Cast Iron Ceiling Plates.

Size.....inches	¾	1	1¼	1½	2	2½	3	3½	4	5	6
Price .....each	.22	.28	.32	.40	.50	.65	.90	1.00	1.20	2.00	2.50

Cast Iron Ceiling Plates, in One Piece.

Size.....inches	½	¾	1	1¼	1½	2	2½	3	3½	4	5	6
Price.. .....each	.11	.13	.16	.18	.23	.27	.36	.50	.55	.68	.95	1.25

FIG. 191.

Cast Iron Floor Plates.

FIG. 192.

Size .....inches	½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8
Price.....each	.06	.06	.08	.11	.14	.16	.24	.30	.35	.42	.60	.75	1.75

This Floor Plate is made with grooves on the under side of the flange, as shown in cut, in order that it may be easily parted by a slight blow when required to be used in halves.

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FLOOR AND CEILING PLATES.

CLOSED.

FIG. 193.

Grabiers Adjustable Floor and Ceiling Plates.

OPEN.

FIG. 194.

Size..... inches	½	¾	1	1¼	1½	2	2½	3	3½	4	4½	5	6
Price, Black, ...each	.14	.14	.18	.20	.24	.28	.43	.60	.90	1.25	1.50	1.60	2.00
Price Nickel Plated, each	.25	.25	.28	.32	.35	.38	.52	.75	1.10	1.50	1.75	2.00	2.50

FLOOR.

FIG. 195.

Grabiers Standard Floor and Ceiling Plates.

CEILING.

FIG. 196.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2
Price, Nickel Plated.....each	.08	.08	.09	.10	.11	.12	.13	.15

FIG 197.

Grabiers Extra Large Floor Plates.

Size .....inches	⅜	½	¾	1	1¼	1½	2
Price, Black.....each	.07	.07	.07	.07	.08	.08	.10
Price, Steel, Nickel Plated.....each	.10	.10	.10	.10	.11	.11	.14
Price, Brass, Nickel Plated.....each	.16	.16	.16	.16	.22	.22	.30

These Plates are made of planished, cold rolled steel or sheet brass. The spring is so constructed that there is no slipping after the plate is in position.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

FLOOR SLEEVES.

CRANES.

FIG. 198.

IDEAL.

FIG. 199.

Cranes Floor Sleeves.

Size.....inches	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8
Price, No. 1.... ...each	1.00	1.10	1.30	.....	.....	.....	.....	.....	.....	.....	.....	.....
Price, No. 2.....each	1.05	1.20	1.35	1.50	1.80	2.10	2.50	3.00	3.75	4.50	5.25	6.75

No. 1. Minimum length, 12 inches; maximum length, 17 inches.
No. 2. Minimum length, 14 inches; maximum length, 24 inches.

Ideal Floor Sleeves.

Size .....inches	¾	1	1¼	1½	2	2½	3	3½	4
Price, No. 1, with plain plates, each	.40	.50	.70	.80	.90	.....	.....	.....	.....
Price, No. 1, with N. P. plates, each	.50	.60	.80	.90	1.00	.....	.....	...	.. ..
Price, No. 2, with plain plates, each	.60	.70	.80	.90	1.10	1.30	1.50	1.80	2.25
Price, No. 2, with N. P. plates, each	.70	.80	.90	1.00	1.20	1.40	1.65	2.00	2.50

No. 1. Minimum length, 10 inches; maximum length, 16 inches.
No. 2. Minimum length, 14 inches; maximum length, 24 inches.

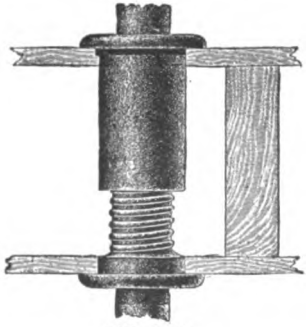

FIG. 200.

Vosburgs Adjustable Cast Iron Floor Thimbles.

Size..... inches	¾	1	1¼	1½	2	2½	3	3½	4	4½	5	6
Price, No. 1, Black, ea.	.50	.60	.80	1.00	1.20	1.40	1.65	.....	.....	.....	.....	.....
Price, No. 1, N. P., ea.	.90	1.00	1.30	1.60	1.90	2.20	2.75	.....	.....	.....	.....	....
Price, No. 2, Black, ea.	.60	.70	.90	1.10	1.30	1.55	1.80	2.15	3.00	4.50	5.00	6.50
Price, No. 2, N. P., ea.	1.00	1.10	1.40	1.70	2.00	2.35	2.90	3.35	4.40	6.00	6.60	8.30

No. 1. Minimum length, 9 inches; maximum length, 16 inches.
No. 2. Minimum length, 15 inches; maximum length, 22 inches.
No. 1 will always be shipped unless otherwise ordered.

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THE W. M. PATTISON SUPPLY CO. 69 CLEVELAND

WROUGHT IRON NIPPLES.

CLOSE NIPPLE.

FIG. 201

SHOULDER NIPPLE.

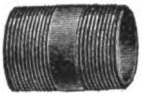

FIG. 202.

Black, Right Hand Nipples.

LENGTH, INCHES.						Size, Inches.	PRICES.		PRICE OF EXTRA LONG NIPPLES.								
									Inches.								
Close.	Short.	Long.					Close or Short.	Long.	4	5	6	7	8	9	10	11	12
	1 1/16	2	2 1/2	3	3 1/2		.04	.06	.07	.08	.10	.12	.14	.15	.17	.18	.19
	1 1/16	2	2 1/2	3	3 1/2		.04	.06	.07	.08	.10	.12	.14	.15	.17	.18	.19
1	1 1/16	2	2 1/2	3	3 1/2		.04	.06	.07	.08	.10	.12	.14	.15	.17	.18	.19
1 1/4	1 1/2	2	2 1/2	3	3 1/2		.05	.07	.08	.10	.12	.14	.16	.18	.20	.22	.23
1 1/2	2	2 1/2	3	3 1/2	4		.06	.09	.....	.11	.13	.17	.18	.20	.22	.24	.26
1 1/2	2	2 1/2	3	3 1/2	4	1	.08	.13	.....	.15	.18	.23	.25	.28	.31	.34	.36
1 1/2	2 1/2	3	3 1/2	4	4 1/2	1 1/4	.11	.17	.....	.20	.24	.29	.33	.36	.40	.44	.47
1 1/2	2 1/2	3	3 1/2	4	4 1/2	1 1/2	.13	.20	.....	.25	.29	.36	.40	.45	.50	.54	.59
2	2 1/2	3	3 1/2	4	4 1/2	2	.18	.27	.....	.32	.38	.50	.54	.59	.65	.72	.77
2 1/2	3	3 1/2	4	4 1/2	5	2 1/2	.39	.59	.....	.....	.68	.90	.97	1.06	1.17	1.26	1.35
2 1/2	3	3 1/2	4	4 1/2	5	3	.48	.72	.....	.....	.85	1.08	1.20	1.33	1.45	1.58	1.70
2 3/4	4	4 1/2	5	5 1/2	6	3 1/2	.75	1.05	.....	.....	.....	1.30	1.45	1.60	1.75	1.90	2.05
3	4	4 1/2	5	5 1/2	6	4	.85	1.20	.....	....	.....	1.52	1.69	1.87	2.05	2.22	2.40
3	4	4 1/2	5	5 1/2	6	4 1/2	1.25	1.70	.....	.....	.....	2.25	2.56	2.75	2.95	3.17	3.40
3 1/4	4 1/2	5	5 1/2	6	6 1/2	5	1.55	2.45	.....	.....	.....	2.58	2.83	3.10	3.35	3.60	3.85
3 1/4	4 1/2	5	5 1/2	6	6 1/2	6	1.85	2.90	.....	.....	.....	3.05	3.35	3.70	4.00	4.30	4.65
3 1/2	5	...	...	...	...	7	3.20	.....	.....	.....	3.60	4.05	4.45	4.90	5.30	5.75	6.15
3 1/2	5	...	...	..	...	8	3.55	.....	.....	.....	4.05	4.55	5.05	5.50	6.00	6.50	7.00
4	5	...	...	...	...	9	5.25	.....	.....	.....	.....	.....	6.50	7.10	7.75	8.40	9.00
4	5	...	...	...	...	10	6.75	.....	.....	.....	.....	.....	8.25	8.90	9.70	10.40	11.15
4	5	...	...	...	...	12	8.00	.....	.....	.....	.....	.....	10.00	10.80	11.75	12.70	13.65

Nipples made to order from extra heavy pipe at double above list.

Nipples larger than 12 inch made to order and charged as cut pipe, threads extra.

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WROUGHT IRON NIPPLES.

Black, Right and Left Hand Nipples.

LENGTH, INCHES. Close.	Short.	Long.			Size, Inches.	PRICES. Close or Short.	Long.	PRICE OF EXTRA LONG NIPPLES. INCHES. 4	5	6	7	8	9	10	11	12
1½	2	2½	3	3½	⅛	.05	.08	.09	.11	.13	.16	.18	.20	.23	.25	.27
1½	2	2½	3	3½	¼	.05	.08	.09	.11	.13	.16	.18	.20	.23	.25	.27
1½	2	2½	3	3½	⅜	.05	.08	.09	.11	.13	.16	.18	.20	.23	.25	.27
1½	2	2½	3	3½	½	.07	.10	.11	.13	.16	.18	.21	.24	.27	.29	.31
1½	2	2½	3	3½	¾	.08	.12	.....	.15	.17	.23	.25	.27	.29	.32	.35
1½	2	2½	3	3½	1	.11	.18	.....	.20	.24	.31	.33	.37	.41	.45	.48
1½	2½	3	3½	4	1¼	.15	.23	.....	.27	.32	.39	.45	.50	.55	.60	.65
1½	2½	3	3½	4	1½	.18	.27	.....	.34	.39	.48	.52	.60	.67	.72	.80
2	2½	3	3½	4	2	.24	.36	.....	.43	.51	.67	.72	.80	.87	.96	1.03
2½	3	3½	4	4½	2½	.52	.79	.....	.....	.91	1.20	1.30	1.40	1.55	1.68	1.80
2½	3	3½	4	4½	3	.65	.96	.....	.....	1.13	1.44	1.60	1.77	1.93	2.10	2.27
2¾	4	4½	5	5½	3½	1.00	1.40	.....	.....	.....	1.75	1.95	2.15	2.35	2.55	2.75
3	4	4½	5	5½	4	1.15	1.60	.....	.....	.....	2.00	2.25	2.50	2.75	3.00	3.25

Add 60 per cent. to above prices for Galvanized Right and Left Nipples.

Galvanized, Right Hand Nipples.

LENGTH, INCHES. Close.	Short.	Long.			Size, Inches.	PRICES. Close or Short.	Long.	PRICE OF EXTRA LONG NIPPLES. INCHES. 4	5	6	7	8	9	10	11	12
1½	2	2½	3	3½	⅛	.06	.11	.12	.15	.17	.21	.24	.26	.29	.31	.34
1½	2	2½	3	3½	¼	.06	.11	.12	.15	.17	.21	.24	.26	.29	.31	.34
1½	2	2½	3	3½	⅜	.06	.11	.12	.15	.17	.21	.24	.26	.29	.31	.34
1½	2	2½	3	3½	½	.06	.11	.13	.16	.18	.23	.26	.28	.31	.33	.36
1½	2	2½	3	3½	¾	.08	.14	.....	.18	.21	.26	.29	.32	.35	.38	.41
1½	2	2½	3	3½	1	.11	.19	.....	.24	.28	.34	.38	.42	.47	.51	.55
1½	2½	3	3½	4	1¼	.17	.29	.....	.32	.38	.45	.51	.57	.63	.69	.75
1½	2½	3	3½	4	1½	.21	.35	.....	.39	.46	.55	.63	.70	.77	.84	.91
2	2½	3	3½	4	2	.27	.47	.....	.52	.61	.74	.83	.93	1.03	1.13	1.23
2½	3	3½	4	4½	2½	.56	.86	.....	.....	1.00	1.26	1.41	1.56	1.71	1.86	2.01
2½	3	3½	4	4½	3	.70	1.10	.....	.....	1.30	1.60	1.80	2.00	2.20	2.40	2.60
2¾	4	4½	5	5½	3½	1.20	1.70	.....	.....	.....	2.10	2.35	2.60	2.85	3.15	3.40
3	4	4½	5	5½	4	1.35	1.87	.....	.....	.....	2.30	2.60	2.90	3.20	3.50	3.80
3	4	4½	5	5½	4½	1.85	2.60	.....	.....	.....	3.30	3.65	4.05	4.45	4.85	5.25
3½	4½	5	5½	6	5	2.30	3.15	.....	....	.....	3.75	4.20	4.60	5.00	5.40	5.85
3½	4½	5	5½	6	6	2.80	4.25	.....	....	.....	4.50	5.00	5.55	6.05	6.60	7.15
3½	5	...	...	...	7	4.25	.....	.....	.....	4.95	5.65	6.35	7.05	7.75	8.45	9.20
3½	5	...	...	...	8	5.00	.....	.....	.....	5.80	6.65	7.50	8.35	9.25	10.10	10.95

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WROUGHT IRON NIPPLES.

SWAGED NIPPLE.

FIG. 203.

Wrought Iron, Swaged Nipples.

Size, Inches.	Price, Black, Each.	Size, Inches.	Price, Black, Each.	Size, Inches.	Price, Black, Each.	Size, Inches.	Price, Black, Each.
2 x 1	1.15	4 x 2½	2.50	5 x 4½	3.00	8 x 4	8.25
2 x 1¼	1.10	4 x 3	2.25	6 x 2	5.50	8 x 6	7.50
2 x 1½	1.00	4 x 3½	2.15	6 x 2½	5.25	10 x 4	15.00
2½ x 1½	1.25	4½ x 2	3.00	6 x 3	5.10	10 x 6	13.50
2½ x 2	1.15	4½ x 2½	2.85	6 x 3½	5.00	10 x 8	12.00
3 x 1½	2.00	4½ x 3	2.75	6 x 4	4.75	12 x 4	22.00
3 x 2	1.75	4½ x 4	2.50	6 x 4½	4.50	12 x 6	20.00
3 x 2½	1.65	5 x 2	4.00	6 x 5	4.25	12 x 8	18.25
3½ x 2	2.00	5 x 2½	3.75	7 x 4	6.75	12 x 10	16.75
3½ x 2½	1.85	5 x 3	3.50	7 x 5	6.50	.....	.....
3½ x 3	1.75	5 x 3½	3.35	7 x 6	6.00	.....	.....
4 x 2	2.75	5 x 4	3.25	8 x 3	8.50	.....	.....

LONG SCREW, WITH COUPLING AND LOCK-NUT FACED.

FIG. 204.

MALLEABLE IRON, RIGHT AND LEFT NIPPLE WITH HEXAGON CENTER.

FIG. 205.

Long Screws, with Coupling and Lock-Nut Faced.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4
Standard Length.....inches	2½	3	3½	4	4½	5	5½	6	7	8	8½	9
Price, Black.....each	.30	.35	.40	.55	.75	1.00	1.30	1.70	2.70	3.70	5.40	6.60
Price, Galvanized.....each	.35	.40	.50	.66	1.00	1.25	1.60	2.10	3.10	4.70	6.50	7.75

Long Screws, Longer than Standard, made to order and charged as CUT PIPE.
Threads, Couplings and Lock-Nuts, extra.
Long Screws made to order from extra heavy pipe.

LOCK-NUT NIPPLES.

Made to Order and Charged as Cut Pipe, Threads Extra.
For list of Faced Couplings and Lock-Nuts see pages 36 and 39.

Malleable Iron, Right and Left Nipples with Hexagon Center.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2
Price, Black.....each	.20	.20	.20	.25	.30	.40	.50	.70

Right Hand Hexagon Nipples made to order at special price.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CAST IRON CAR HEATER FITTINGS.

ELBOW.

FIG. 206.

Extra Heavy.

TEE.

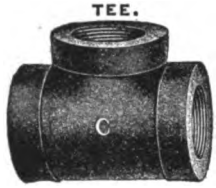

FIG. 207.

Elbows.

Size ..... inches	½	¾	1	1¼	1¼x1¼	1½	2
Price ..... each	.22	.25	.27	.30	.45	.45	.55
Price, Right and Left..... each	.22	.25	.27	.30	.45	.45	.55

Tees.

Size..... inches	½	¾	1	1¼	1¼x¾x1¼
Price ..... each	.30	.35	.40	.45	.45

Size..... inches	1¼x1¼x¾	1¼x1¼x½	1½x1½x¾	1½	2
Price ..... each	.45	.45	.65	.65	.85

Couplings.

RETURN BENDS.

FIG. 208.

CAST IRON.

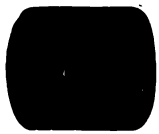

FIG. 209.

WROUGHT IRON.

FIG. 210.

Return Bends.

Size..... inches	1	1¼	1½	1½	1½	1½	1½	1½	2	2
Price..... each	.45	.45	.50	.60	.70	.85	1.10	.80	1.00	1.75
C. to C..... inches	2¾	2¾	3	4	5	6	8	2½	3½	4½

Cast Iron Couplings.

Size..... inches	1	1½	1½	2
Price..... each	.25	.30	.45	.55
Price, Right and Left..... each	.35	.40	.55	.65

Wrought Iron Couplings.

Size..... inches	½	¾	1	1¼	1½	2
Price, Black..... each	.14	.20	.26	.34	.42	.56
Price, Galvanized..... each	.20	.25	.32	.42	.55	.75
Price, Black, Right and Left..... each	.20	.30	.40	.45	.55	.70
Price, Galvanized, Right and Left. each	.25	.35	.45	.55	.70	.90
Outside Diameter..... inches	1.13	1.44	1.63	2.13	2.31	2.75
Length ..... inches	1.88	2.13	2.38	1.88	2.94	3.13

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LONG TURN CAST IRON FITTINGS.

Straight and Reducing.

NO. 1, STRAIGHT ELBOW.

FIG. 211.

NO. 2, STRAIGHT DOUBLE BRANCH ELBOW.

FIG. 212.

No 1, Elbows, Straight and Reducing.

Size .....inches	1	1¼	1½	2	2½	3	3½	4
Price.....each	.32	.40	.55	.80	1.20	2.25	3.25	3.50
Price, Reducing...each	.48	.60	.83	1.20	1.80	3.38	4.88	5.25
Size.....inches	4½	5	6	7	8	9	10	12
Price..... each	5.50	6.50	8.75	13.00	17.00	25.50	30.00	40.00
Price, Reducing...each	8.25	9.75	13.13	19.50	25.50	38.25	45.00	60.00

No. 2, Double Branch Elbows, Straight and Reducing.

Size ..... inches	1	1¼	1½	2	2½	3	3½	4
Price..... each	.64	.80	1.10	1.60	2.40	4.50	6.50	7.00
Price, Reducing. each	.96	1.20	1.65	2.40	3.60	6.75	9.75	10.50
Size.....inches	4½	5	6	7	8	9	10	12
Price ..... each	11.00	13.00	17.50	26.00	34.00	51.00	60.00	80.00
Price, Reducing...each	16.50	19.50	26.25	39.00	51.00	76.50	90.00	120.00

NO. 3, STRAIGHT TEE.

FIG. 213

NO. 4, STRAIGHT CROSS.

FIG. 214.

No. 3, Tees, Straight and Reducing.

Size.....inches	1	1¼	1½	2	2½	3	3½	4
Price.....each	.48	.60	.82	1.20	1.80	3.40	4.90	5.25
Price, Reducing ...each	.72	.90	1.23	1.80	2.70	5.10	7.35	7.88
Size.....inches	4½	5	6	7	8	9	10	12
Price ..... each	8.25	9.75	13.25	19.50	25.50	38.00	45.00	60.00
Price, Reducing ...each	12.38	14.63	19.88	29.25	38.25	57.00	67.50	90.00

No 4, Crosses, Straight and Reducing.

Size .... inches	1¼	1½	2	2½	3	3½	4
Price ..... each	1.10	1.50	2.15	3.20	6.00	8.75	9.50
Price, Reducing.....each	1.65	2.25	3.23	4.80	9.00	13.13	14.25
Size.....inches	5	6	7	8	9	10	12
Price ..... each	17.50	24.00	35.00	45.00	68.00	80.00	107.00
Price, Reducing.....each	26.25	36.00	52.50	67.50	102.00	120.00	160.50

Nos. 1, 2, 3 and 4 made to order in reducing sizes, by bushing in the sand.

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LONG TURN CAST IRON FITTINGS.

Straight and Reducing.

NO. 12, STRAIGHT BACK TEE

FIG. 215.

No. 12, Tees, Straight Back, Straight and Reducing.

Size.....inches	1	1¼	1½	2	2½	3	3½	4
Price.....each	.64	.80	1.10	1.60	2.40	4.50	6.50	7.00
Price, Reducing.....each	.96	1.20	1.65	2.40	3.60	6.75	9.75	10.50

Size.....inches	4½	5	6	7	8	9	10	12
Price.....each	11.00	13.00	17.50	26.00	34.00	51.00	60.00	80.00
Price, Reducing.....each	16.50	19.50	26.25	39.00	51.00	76.50	90.00	120.00

NO. 13, STRAIGHT ELBOW. With Flanged Ends NO. 17, STRAIGHT TEE.

FIG. 216.

FIG. 217.

Elbows, Tees and Crosses, Flanged Ends, Straight and Reducing.

Size.....inches	2	2½	3	3½	4	5	6	7	8
Price, No. 13 Elbow, Flanged One End.....	5.00	5.50	6.00	6.50	7.50	10.00	14.00	25.00	30.00
Price, No. 15 Elbow, Flanged Both Ends.....	6.00	6.75	7.50	8.50	10.00	12.50	17.50	30.00	35.00
Price, No. 17 Tees, Flanged One or Two Ends.....	8.00	9.00	10.00	11.00	12.00	15.00	22.00	40.00	45.00
Price, No. 19 Tees Flanged Three Ends.....	9.00	10.00	11.50	13.00	15.00	18.00	26.00	45.00	50.00
Price, No. 21 Cross, Flanged Two or Three Ends....	11.00	12.50	13.50	15.00	17.00	22.00	30.00	55.00	65.00
Price, No. 23 Cross, Flanged Three or Four Ends...	12.00	13.50	15.00	17.00	20.00	25.00	35.00	60.00	70.00

Above prices are for Fittings faced and drilled.

Leng Sweep Fittings with Flanged Ends Reducing.

These Fittings can be furnished reducing on the screwed end, by bushing in the sand, at same price.

These Fittings can be furnished reducing on the flanged ends, only from such reducing patterns as we have, at same price.

When ordering Nos. 17, 21, 23 send sketch showing size of openings and position of flanges.

No. 12 Straight Back Tees furnished only in the following reducing sizes, 3½x3x4, 4x3½x5 and 4x5x6 inches.

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LONG TURN CAST IRON FITTINGS.

Galvanized.

Size .....inches	1	1¼	1½	2	2½	3	3½	4	4½
Price, Elbow No.1, each	.64	.80	1.10	1.60	2.40	4.50	6.50	7.00	11.00
Price, Double Branch, Elbow No.2, ea.	1.28	1.60	2.20	3.20	4.80	9.00	13.00	14.00	22.00
Price, Tee No. 3.....each	.96	1.20	1.64	2.40	3.60	6.80	9.80	10.50	16.50
Price, Cross No. 4...each	1.70	2.20	3.00	4.30	6.40	12.00	17.50	19.00	30.00

Size.....inches	5	6	7	8	9	10	12	.....	.....
Price, Elbow No.1, each	13.00	17.50	26.00	34.00	51.00	60.00	80.00	.....	.....
Price, Double Branch Elbow No. 2, ea	26.00	35.00	52.00	68.00	102.00	120.00	160.00	.....	.....
Price, Tee No. 3....each	19.50	26.50	39.00	51.00	76.00	90.00	120.00	.....	.....
Price, Cross No. 4..each	35.00	48.00	70.00	90.00	136.00	160.00	214.00	.....	.....

Reducing Sizes.

Size..... inches	1¼	1½	2	2½	3	3½	4	4½
Price, Elbow No. 1.....each	1.00	1.38	2.00	3.00	5.60	8.15	8.75	13.75
Price, Double Branch, Elbow No. 2, each	2.00	2.75	4.00	6.00	11.25	16.25	17.50	27.50
Price, Tee No. 3.....each	1.50	2.05	3.00	4.50	8.50	12.25	13.10	20.60
Price, Cross No. 4.....each	.....	3.75	5.35	8.00	15.00	21.75	23.75	37.50

Size .....inches	5	6	7	8	9	10	12	.....
Price, Elbow No. 1.....each	16.25	21.75	32.50	42.50	63.75	75.00	100.00	.....
Price, Double Baanch, Elbow No. 2, each	32.50	43.75	65.00	85.00	127.00	150.00	200.00	.....
Price, TeeNo. 3. .....each	24.35	33.00	48.75	63.75	95.00	112.50	150.00	.....
Price, Cross No. 4.....each	43.75	60.00	87.00	112.00	170.00	200.00	267.00	.....

Base, Elbows and Tees.

BASE ELBOW.

FIG. 218.

BASE TEE.

FIG. 219.

Base, Elbows, Screwed.

Size.....inches	3	4	4½	5	6
Price, Black.....each	8.00	11.00	14.00	15.00	18.00

Size.....inches	7	8	9	10	12
Price, Black.....each	25.00	32.00	40.00	50.00	65.00

Base Tees made to order only.

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LOW PRESSURE, CAST IRON FLANGED FITTINGS.

For 50 Pounds Working Pressure.

STRAIGHT ELBOW.

FIG. 220.

45° ELBOW.

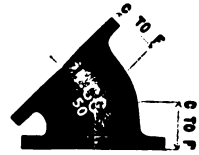

FIG. 221.

Straight Flanged Elbows.

No. 567.

Size, Inches.	Center to Face. Inches.	Diam. of Flanges. Inches.	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.
12	12	19	44.00	50.00
14	14	21	58.00	65.00
15	14½	22½	72.00	80.00
16	15	23½	84.00	93.00
18	16½	25	108.00	118.00
20	18	27½	135.00	148.00
22	20	29½	160.00	180.00
24	22	32	200.00	220.00
26	23	34½	.....	.....
28	24	36½	.....	.....
30	25	38¾	.....	.....
36	28	45¾	.....	.....

45° Flanged Elbows.

No. 569.

Size, Inches.	Center to Face. Inches.	Diam. of Flanges. Inches.	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.
12	7½	19	44.00	50.00
14	7½	21	58.00	65.00
15	8	22½	72.00	80.00
16	8	23½	84.00	93.00
18	8½	25	108.00	118.00
20	9½	27½	135.00	148.00
22	10	29½	160.00	180.00
24	11	32	200.00	220.00
26	13	34½	.....	.....
28	14	36½	.....	.....
30	15	38¾	.....	.....
36	18	45¾	.....	.....

Prices of Fittings larger than 24 inch on application.

Flanged Fittings will always be furnished faced only, unless otherwise ordered.

Template for drilling, see page 95.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 77

LOW PRESSURE, CAST IRON FLANGED FITTINGS.

Straight and Reducing.

For 50 Pounds Working Pressure

STRAIGHT TEE.

FIG. 222.

REDUCING TEE.

FIG. 223.

Straight Flanged Tees.

No. 571.

Size. Inches.	Center to Face. Inches.	Face to Face. Inches.	Diameter of Flanges Inches.	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.
12	12	24	19	64.00	73.00
14	14	28	21	84.00	95.00
15	14½	29	22¼	105.00	117.00
16	15	30	23½	122.00	135.00
18	16½	33	25	155.00	170.00
20	18	36	27½	195.00	215.00
22	20	40	29½	230.00	260.00
24	22	44	32	290.00	320.00
26	23	46	34½	....	....
28	24	48	36½	....	....
30	25	50	38¾	....	....
36	28	56	45¼	....	....

Reducing Flanged Tees.

REDUCING IN RUN OR BRANCH.

No. 573.

Size. Inches.	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.
12	74.00	83.00
14	96.00	107.00
15	120.00	132.00
16	140.00	153.00
18	178.00	193.00
20	225.00	245.00
22	265.00	295.00
24	335.00	365.00
26	....	....
28	....	....
30	....	....
36	....	....

Prices of Fittings larger than 24 inch on application.

Flanged Fittings will always be furnished faced only, unless otherwise ordered.

For dimensions of Reducing Flanged Tees, see pages 81 and 82.

Template for drilling, see page 95.

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THE W. H. PATTISON SUPPLY CO. CLEVELAND

LOW PRESSURE, CAST IRON FLANGED FITTINGS.

Straight and Reducing.

For 50 Pounds Working Pressure.

STRAIGHT CROSS.

FIG. 224.

Straight Flanged Crosses. No. 575.

Size, Inches.	Face to Face, Inches.	Diameter of Flanges. Inches.	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.
12	24	19	88.00	100.00
14	28	21	116.00	130.00
15	29	22½	144.00	160.00
16	30	23½	168.00	186.00
18	33	25	216.00	236.00
20	36	27½	270.00	296.00
22	40	29½	320.00	360.60
24	44	32	400.00	440.00
26	46	34½	.....	.....
28	48	36½	.....	.....
30	50	38¾	.....	.....
36	56	45¾	.....	.....

Reducing Flanged Crosses. No. 577.

Size, Inches.	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.
12	100.00	112.00
14	132.00	146.00
15	165.00	180.00
16	193.00	210.00
18	248.00	268.00
20	310.00	335.00
22	370.00	410.00
24	460.00	500.00
26	.....	.....
28	.....	.....
30	.....	.....
36	.....	.....

Prices of Fittings larger than 24 inch on application.

Flanged Fittings will always be furnished faced only, unless otherwise ordered.

Template for drilling, see page 95.

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LOW PRESSURE, CAST IRON FLANGED FITTINGS.

For 50 Pounds Working Pressure.

BASE ELBOW.

FIG. 225.

REDUCER.

FIG. 226.

Flanged Base Elbows. No. 579.

Size, Inches.	Center to Face, Inches.	Center to Base, Inches.	Diameter of Flanges, Inches.	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.
12	12	10½	19	74.00	83.00
14	14	13½	21	96.00	107.00
15	14½	14	22¼	120.00	132.00
16	15	14¾	23½	140.00	153.00
18	16½	15½	25	178.00	193.00
20	18	16¾	27½	225.00	245.00
22	20	17¾	29½	265.00	295.00
24	22	18¾	32	335.00	365.00

Flanged Taper Reducers. No. 581.

Size, Inches.	Face to Face, Inches.	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.
12			
14			
15			
16			
18			
20			
22			
24			

Owing to the variation in lengths and reductions of Flanged Taper Reducers, we are unable to furnish dimensions or prices.

BASE TEE.

FIG. 227.

Flanged Base Tees made to order; prices on application.

Template for drilling, see page 95.

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LOW PRESSURE, COMPANION FLANGES.

For 50 Pounds Working Pressure.

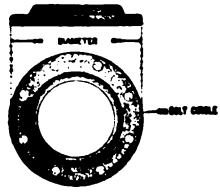

FIG. 228.

No. 583.

SIZE.	PRICE. Faced. Each.	PRICE. Faced and Drilled. Each.	PRICE OF BOLTS Per Set for One Joint.
12x19 inches	10.50	12.50	1.55
14x21 inches	13.75	16.00	2.15
15x21 inches	18.00	21.00	.....
15x22½ inches	18.00	21.00	2.90
16x23½ inches	22.50	26.00	3.00
18x25 inches	27.50	31.00	.....
20x27½ inches	30.00	34.00	.....

Dimensions of Companion Flanges.

For 50 Pounds Working Pressure.

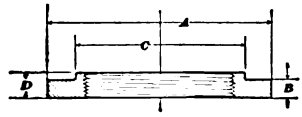

FIG. 229.

Size..... inches	12	14	15	16	18	20
A—Diameter of Flange.....inches	19	21	22½	23½	25	27½
B—Thickness of Flange.....inches	13/16	7/8	15/16	1	1 1/16	1 1/8
C—Diameter of Hub..... inches	14 1/8	15 7/16	16 7/16	17½	19 7/16	21 3/4
D—Length of Thread.....inches	2 1/16	2 1/16	2 1/16	2 7/16	2 5/8	2 3/4

NOTE.— Flanges and Flanged Fittings are drilled in multiples of four so that Fittings may be made to face in any quarter, and holes straddle center-line.

Template for drilling, see page 95.

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DIMENSIONS OF CAST IRON FLANGED FITTINGS.

THE W. M. PATTISON SUPPLY CO. CLEVELAND

For 50 Pounds Working Pressure.

REDUCING FITTINGS NOT COVERED IN THIS TABLE WILL BE FOUND ON PAGE 82.

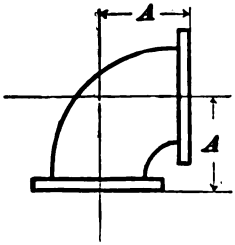

FIG. 230.

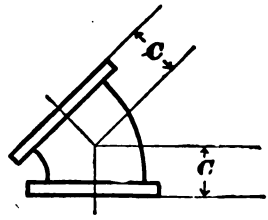

FIG. 231

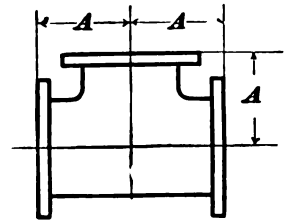

FIG. 232.

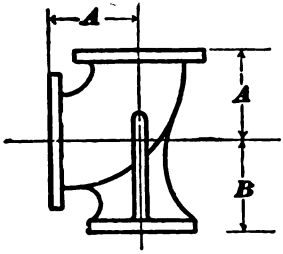

FIG. 233.

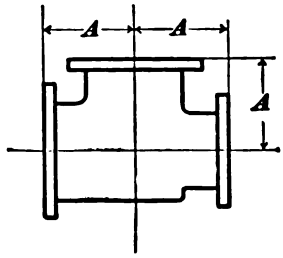

FIG. 234.

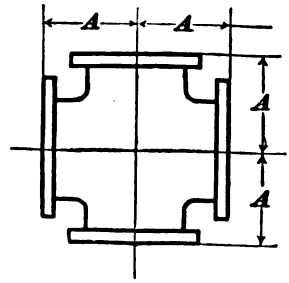

FIG. 235.

Size of Run.....	Inches.	12	14	15	16	18	20	22	24	26	28	30	36
Outlets.....	Inches.	9 and larger	10 and larger	10 and larger	12 and larger	14 and larger	16 and larger	16 and larger	18 and larger	20 and larger	20 and larger	22 and larger	24 and larger
Face to Face	AA	24	28	29	30	33	36	40	44	46	48	50	56
Center to Face.....	A	12	14	14½	15	16½	18	20	22	23	24	25	28
Center to Face, 45° Ells.....	C	7½	7½	8	8	8½	9½	10	11	13	14	15	18
Center to Base of Base Ells	B	10½	13½	14	14¾	15½	16¾	17¾	18¾	20	21	22	25
Diameter of Flanges.....	Inches.	19	21	22¼	23½	25	27½	29½	32	34¼	36½	38¾	45¾
Thickness of Flanges.....	Inches.	3/16	7/8	15/16	1	1 1/16	1 1/8	1 3/16	1¼	1⅜	1 7/16	1½	1¾

Tees Increasing on the Outlet.

Tees having outlets larger than the run will be the same length center to face of all openings as a Tee with all openings of the size of the outlet.

Example.

A 12″ x 12″ x 18″ Tee will be goverened by the dimensions of the 18″ Tee, viz: 16½ inches center to face of all openings and 33 inches face to face.

The face to face dimensions of Flanged Fittings are not changed by reduction on the run.

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DIMENSIONS OF CAST IRON FLANGED FITTINGS.

For 50 Pounds Working Pressure.

HAVING OUTLET SMALLER THAN SHOWN ON PAGE 81

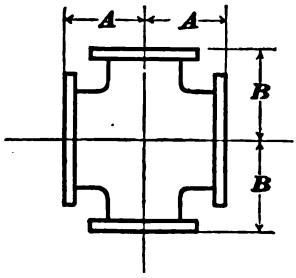

FIG. 236.

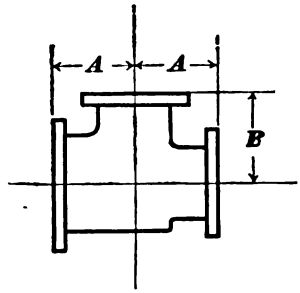

FIG. 237.

Size of Run.... .....inches	12	14	15	16	18	20
Outlets.....inches	8 and smaller	9 and smaller	9 and smaller	10 and smaller	12 and smaller	14 and smaller
Face to Face.....AA	20	22	23	24	26	28
Center to Face.....A	10	11	11½	12	13	14
Center to Face.....B	11	13	13½	14	15½	17
Diameter of Flanges	19	21	22½	23½	25	27½
Thickness of Flanges.....	13/16	7/8	15/16	1	1 1/16	1 1/8

Size of Run..... inches	22	24	26	28	30	36
Outlets.....inches	14 and smaller	16 and smaller	18 and smaller	18 and smaller	20 and smaller	22 and smaller
Face to Face .....AA	28	30	32	32	36	42
Center to Face.....A	14	15	16	16	18	21
Center to Face..... .....B	18	19	20	21	23	27
Diameter of Flanges.....	29½	32	34½	36½	38¾	45¾
Thickness of Flanges.....	1 3/16	1 1/4	1 3/8	1 7/16	1½	1¾

The face to face dimensions of Flanged Fittings are not changed by reduction on the run.

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STANDARD CAST IRON FLANGED FITTINGS.

For 125 Pounds Working Pressure.

STRAIGHT ELBOW.

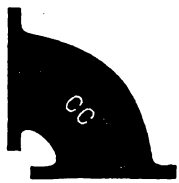

FIG. 238.

45° ELBOW.

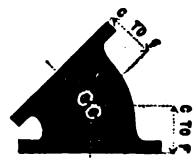

FIG. 239.

Straight Flanged Elbows.

No. 525.

Size,	Center to Face.	Diameter of Flanges.	PRICE. With Faced Flanges.	PRICE. With Faced and Drilled Flanges.
Inches.	Inches.	Inches.	Each.	Each.
2	4½	6	4.75	5.75
2½	5	7	5.00	6.25
3	5½	7½	5.75	7.00
3½	6	8½	6.50	7.75
4	6½	9	7.25	9.25
4½	7	9¼	9.00	11.00
5	7½	10	9.75	11.75
6	8	11	12.00	14.00
7	8½	12½	16.00	19.75
8	9	13½	20.00	23.75
9	10	15	26.00	30.00
10	11	16	32.00	36.00
12	12	19	44.00	50.00
14	14	21	58.00	65.00
15	14½	22½	72.00	80.00
16	15	23½	84.00	93.00

45° Flanged Elbows.

No. 527.

Size,	Center to Face.	Diameter of Flanges.	PRICE. With Faced Flanges.	PRICE. With Faced and Drilled Flanges.
Inches.	Inches.	Inches.	Each.	Each.
2	2½	6	5.25	6.25
2½	3	7	5.50	6.75
3	3	7½	6.25	7.50
3½	3½	8½	7.25	8.50
4	4	9	8.00	10.00
4½	4	9¼	10.00	12.00
5	4½	10	10.75	12.75
6	5	11	13.00	15.00
7	5½	12½	16.00	19.75
8	5½	13½	20.00	23.75
9	6	15	26.00	30.00
10	6½	16	32.00	36.00
12	7½	19	44.00	50.00
14	7½	21	58.00	65.00
15	8	22½	72.00	80.00
16	8	23½	84.00	93.00

NOTE.— Larger sizes made to order. Prices on application. Flanged Fittings will always be furnished faced only, unless otherwise ordered.

For Flanged Reducing Taper Elbows, see page 88.

Template for drilling, see page 95.

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STANDARD CAST IRON FLANGED FITTINGS.

Straight and Reducing

For 125 Pounds Working Pressure.

STRAIGHT TEE.

FIG. 240.

REDUCING TEE.

FIG. 241.

Straight Flanged Tees.

No. 529.

Size, Inches.	Center to Face, Inches.	Face to Face, Inches.	Diameter of Flanges, Inches.	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.
2	4½	9	6	7.00	8.50
2½	5	10	7	7.25	9.00
3	5½	11	7½	8.25	10.00
3½	6	12	8½	9.50	11.25
4	6½	13	9	10.50	13.50
4½	7	14	9½	13.00	16.00
5	7½	15	10	14.25	17.25
6	8	16	11	17.50	20.50
7	8½	17	12½	23.00	28.75
8	9	18	13½	29.00	34.75
9	10	20	15	38.00	44.00
10	11	22	16	46.50	52.50
12	12	24	19	64.00	73.00
14	14	28	21	84.00	95.00
15	14½	29	22½	105.00	117.00
16	15	30	23½	122.00	135.00

Reducing Flanged Tees.

REDUCING IN RUN OR BRANCH.

No. 531.

Size, Inches.	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.
.....	.....	.....
2½	8.25	10.00
3	9.50	11.25
3½	11.00	12.75
4	12.00	15.00
4½	15.00	18.00
5	16.25	19.25
6	20.00	23.00
7	26.50	32.00
8	33.50	39.00
9	43.50	50.00
10	53.50	60.00
12	74.00	83.00
14	96.00	107.00
15	120.00	132.00
16	140.00	153.00

NOTE.—Larger sizes made to order. Prices on application. Flanged Fittings will always be furnished faced only, unless otherwise ordered.

For dimensions of Reducing Flanged Tees, see pages 93 and 94.

Template for drilling, see page 95.

Reducing Flanged Tees.

A moderate assortment of Flanged Reducing Tees is carried in stock. To overcome the delay in filling orders for such sizes as are not carried in stock, we can use the Reducing Flanges, with Ribs, as per illustration and note on page 91, if desired by the customer.

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STANDARD CAST IRON FLANGED FITTINGS.

Straight and Reducing.

For 125 Pounds Working Pressure.

STRAIGHT SINGLE SWEEP TEE.

FIG. 242.

REDUCING SINGLE SWEEP TEE.

FIG 243.

Straight Single Sweep Flanged Tees.

No. 533.

Size, Inches.	Center to Face. Inches.	Face to Face. Inches.	Diameter of Flanges. Inches.	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.
2	4½	9	6	8.00	9.50
2½	5	10	7	8.25	10.00
3	5½	11	7½	9.50	11.25
3½	6	12	8½	11.00	12.75
4	6½	13	9	12.00	15.00
4½	7	14	9½	15.00	18.00
5	7½	15	10	16.25	19.25
6	8	16	11	20.00	23.00
7	8½	17	12½	26.50	32.00
8	9	18	13½	33.50	39.00
9	10	20	15	43.50	50.00
10	11	22	16	53.50	60.00
12	12	24	19	74.00	83.00
14	14	28	21	96.00	107.00
15	14½	29	22½	120.00	132.00
16	15	30	23½	140.00	153.00

Reducing Single Sweep Flanged Tees.

REDUCING IN RUN OR BRANCH.

No. 535.

Size, Inches.	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.
.....	.....	.....
2½	9.50	11.25
3	11.00	12.75
3½	12.50	14.25
4	13.75	16.75
4½	17.25	20.25
5	18.75	21.75
6	23.00	26.00
7	30.00	35.50
8	38.50	44.00
9	50.00	56.50
10	61.50	68.00
12	85.00	94.00
14	110.00	121.00
15	138.00	150.00
16	160.00	173.00

NOTE. Larger sizes made to order. Prices on application. Flanged Fittings will always be furnished faced only, unless otherwise ordered.

Single sweep Tees with the side opening larger than the run, we do not furnish.

For dimensions of Reducing Flanged Tees, see pages 93 and 94.

Template for drilling, see page 95.

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STANDARD CAST IRON FLANGED FITTINGS.

Straight and Reducing.

For 125 Pounds Working Pressure

STRAIGHT CROSS.

FIG. 244.

Straight Flanged Crosses. No. 537. **Reducing Flanged Crosses. No. 539.**

Size, Inches.	Face to Face. Inches.	Diameter of Flanges. Inches.	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.	Size, Inches.	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.
2	9	6	9.50	11.50	.....	.....	.....
2½	10	7	10.00	12.50	2½	11.50	14.00
3	11	7½	11.50	14.00	3	13.25	15.75
3½	12	8½	13.00	15.50	3½	15.00	17.50
4	13	9	14.50	18.50	4	16.75	20.75
4½	14	9¼	18.00	22.00	4½	20.75	25.00
5	15	10	19.50	23.50	5	22.50	26.50
6	16	11	24.00	28.00	6	27.50	31.50
7	17	12½	32.00	39.50	7	37.00	45.00
8	18	13½	40.00	47.50	8	46.00	53.50
9	20	15	52.00	60.00	9	60.00	68.00
10	22	16	64.00	72.00	10	74.00	82.00
12	24	19	88.00	100.00	12	100.00	112.00
14	28	21	116.00	130.00	14	132.00	146.00
15	29	22½	144.00	160.00	15	165.00	180.00
16	30	23½	168.00	186.00	16	193.00	210.00

NOTE.—Larger sizes made to order. Prices on application. Flanged Fittings will always be furnished faced only, unless otherwise ordered.

Template for drilling, see page 95.

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STANDARD CAST IRON FLANGED FITTINGS.

Straight and Reducing.

For 125 Pounds Working Pressure

STRAIGHT Y OR LATERAL.

FIG. 245.

Straight Flanged Laterals.

No. 541.

Size, Inches.	Diameter of Flanges, Inches.	PRICE. With Faced Flanges, Each.	PRICE. With Faced and Drilled Flanges, Each.
4	9	14.50	18.50
4½	9¼	18.00	22.00
5	10	19.50	23.50
6	11	24.00	28.00
7	12½	32.00	39.50
8	13½	40.00	47.50
9	15	52.00	60.00
10	16	64.00	72.00
12	19	88.00	100.00
14	21	116.00	130.00
15	22¼	144.00	160.00
16	23½	168.00	186.00

Reducing Flanged Laterals

No. 543.

Size, Inches.	PRICE. With Faced Flanges, Each.	PRICE. With Faced and Drilled Flanges, Each.
4	16.75	20.75
4½	20.75	25.00
5	22.50	26.50
6	27.50	31.50
7	37.00	45.00
8	46.00	53.50
9	60.00	68.00
10	74.00	82.00
12	100.00	112.00
14	132.00	146.00
15	165.00	180.00
16	193.00	210.00

NOTE.— Larger sizes made to order. Prices on application. Flanged Fittings will always be furnished faced only, unless otherwise ordered.

For dimensions of Flanged Laterals, see page 94.

Reducing Flanged Laterals being made to order, we are unable to give dimensions. Template for drilling, see page 95.

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STANDARD CAST IRON FLANGED FITTINGS.

REDUCING ELBOW. **Reducing.** REDUCER.

For 125 Pounds Working Pressure.

FIG. 246.

Flanged Reducing Taper Elbows.
No. 545.

FIG. 247.

Flanged Taper Reducers.
No. 547.

Size, Inches.	Center to Face. Inches.	Diameter of Flanges. Inches.	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.
3½ x 2½	6	8½ x 7	13.00	15.50
3½ x 3	6	8½ x 7½	13.00	15.50
4 x 2	6½	9 x 6	14.50	18.50
4 x 2½	6½	9 x 7	14.50	18.50
4 x 3	6½	9 x 7½	14.50	18.50
5 x 2½	7½	10 x 7	19.50	23.50
5 x 3	7½	10 x 7½	19.50	23.50
5 x 4	7½	10 x 9	19.50	23.50
6 x 3	8	11 x 7½	24.00	28.00
6 x 3½	8	11 x 8½	24.00	28.00
6 x 4	8	11 x 9	24.00	28.00
6 x 5	8	11 x10	24.00	28.00
7 x 5	8½	12½x10	32.00	39.50
7 x 6	8½	12½x11	32.00	39.50
8 x 4	9	13½x 9	40.00	47.50
8 x 5	9	13½x10	40.00	47.50
8 x 6	9	13½x11	40.00	47.50
10 x 5	11	16 x10	64.00	72.00
10 x 6	11	16 x11	64.00	72.00
10 x 8	11	16 x13½	64.00	72.00
12 x 8	12	19 x13½	88.00	100.00
12 x10	12	19 x16	88.00	100.00
14 x10	14	21 x16	116.00	130.00
14 x12	14	21 x19	116.00	130.00
15 x10	14½	22½x16	144.00	160.00
15 x12	14½	22½x19	144.00	160.00
16 x12	15	23½x19	168.00	186.00
16 x15	15	23½x22½	168.00	186.00

Size, Inches	Face to Face. Inches	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.
8			
9			
10			
12			
14			
15			
16			
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Owing to the variation in lengths and reductions of Flanged Taper Reducers, we are unable to publish dimensions or prices.

Flanged Taper Reducing Elbows not listed above will be made to order at a special price.

Template for drilling, see page 95.

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STANDARD CAST IRON FLANGED FITTINGS.

For 125 Pounds Working Pressure.

BASE ELBOW.

FIG. 248.

Flanged Base Elbows.

No. 549.

Size, Inches.	Center to Face. Inches.	Center to Base. Inches.	Diam. of Fl'ges. Inches.	PRICE. With Faced Fl'ges. Each.	PRICE. With Faced and Drilled Fl'ges. Each.
4	6½	6½	9	12.00	15.00
4½	7	6¾	9½	15.00	18.00
5	7½	7	10	16.25	19.25
6	8	7½	11	20.00	23.00
7	8½	8½	12½	26.50	32.00
8	9	8¾	13½	33.50	39.00
9	10	9½	15	43.50	50.00
10	11	10	16	53.50	60.00
12	12	10½	19	74.00	83.00
14	14	13½	21	96.00	107.00
15	14½	14	22½	120.00	132.00
16	15	14¾	23½	140.00	153.00

LONG RADIUS ELBOW.

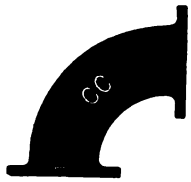

FIG. 249.

Flanged Long Radius Elbows.

No. 551.

Size, Inches.	Center to Face. Inches.	Radius Inches.	Diam. of Fl'ges. Inches.	PRICE. With Faced Fl'ges. Each.	PRICE. With Faced and Drilled Flanges. Each.
4	13¾	12	9	14.50	18.50
5	14½	14	10	19.50	23.50
6	14½	14	11	24.00	28.00
7	17½	16	12½	32.00	39.50
8	15½	14½	13½	40.00	47.50
9	17½	16½	15	52.00	60.00
10	18	17	16	64.00	72.00
12	24	22½	19	110.00	120.00
14	33	32	21	160.00	175.00
15	33	32	22½	180.00	200.00
16	33	32	23½	200.00	220.00

Long Radius Elbows of different dimensions from above made to order at a special price

BASE TEE.

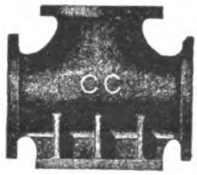

FIG. 250.

Flanged Base Tees made to order; prices on application.

Template for drilling, see page 95.

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STANDARD COMPANION FLANGES.

For 125 Pounds Working Pressure.

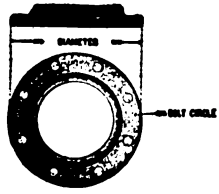

FIG. 251.

BLIND FLANGES.
16 INCHES AND UNDER.

FIG. 252.

BLIND FLANGES.
16 INCHES AND LARGER.

FIG. 253.

Faced Flanges. No. 553. **Bolts** **Faced Blind Flanges. No. 555.**

Size, Inches.	PRICE. Faced. Each.	PRICE. Faced and Drilled. Each.	Price of Bolts per Set for one Joint.	Size, Inches.	PRICE. Faced. Each.	PRICE. Faced and Drilled. Each.
1 x 4	1.00	1.25	.25	.....	.....	.....
1¼ x 4½	1.05	1.35	.25	2 x 6	1.40	1.70
1½ x 5	1.10	1.40	.25	2½ x 7	1.60	2.20
2 x 6	1.20	1.50	.25	3 x 7½	1.85	2.50
2½ x 7	1.40	2.00	.25	3½ x 8½	2.10	2.80
3 x 7½	1.60	2.25	.25	4 x 9	2.50	3.35
3½ x 8½	1.80	2.50	.25	4½ x 9½	2.90	3.75
4 x 9	2.15	3.00	.35	5 x 10	3.25	4.10
4½ x 9½	2.50	3.35	.70	6 x 11	3.70	4.50
5 x 10	2.80	3.65	.70	7 x 12½	5.00	6.40
6 x 11	3.20	4.00	.70	8 x 13½	5.75	7.25
7 x 12½	4.35	5.75	.75	9 x 15	7.75	9.25
8 x 13½	5.00	6.50	.75	10 x 16	9.00	10.60
9 x 15	6.75	8.25	1.15	12 x 19	14.00	16.00
10 x 16	7.75	9.25	1.70	14 x 21	17.50	19.75
12 x 19	10.50	12.50	1.70	15 x 21	22.50	25.50
14 x 21	13.75	16.00	2.50	15 x 22½	22.50	25.50
15 x 21	18.00	21.00	.....	16 x 23½	28.00	31.50
15 x 22½	18.00	21.00	3.30	18 x 25	33.00	36.50
16 x 23½	22.50	26.00	3.30	20 x 27½	36.00	40.00
18 x 25	27.50	31.00	....	22 x 29½	41.00	46.00
20 x 27½	30.00	34.00	....	24 x 32	50.00	55.00

NOTE.—Flanges and Flanged Fittings are drilled in multiples of four, so that Fittings may be made to face in any quarter, and holes straddle center-line.

Template for drilling, see page 95.

Table of dimensions, see page 92.

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STANDARD REDUCING COMPANION FLANGES WITH RIBS

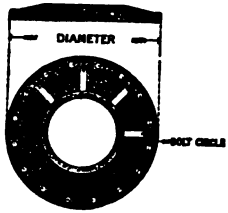

FIG. 254.

For 125 Pounds Working Pressure

No. 557.

Size, Inches.	PRICE. Faced. Each.	PRICE. Faced and Drilled. Each.	Size. Inches.	PRICE. Faced. Each.	PRICE. Faced and Drilled. Each.	Size, Inches.	PRICE. Faced. Each.	PRICE. Faced and Drilled. Each.
2 x 7	2.10	3.00	5x12½	6.50	8.50	14x22½	27.00	31.50
2 x 7½	2.40	3.35	6x12½	6.50	8.50	10x23½	34.00	39.00
2½x 7½	2.40	3.35	5x13½	7.50	9.75	12x23½	34.00	39.00
2 x 8½	2.70	3.75	6x13½	7.50	9.75	14x23½	34.00	39.00
2½x 8½	2.70	3.75	7x13½	7.50	9.75	15x23½	34.00	39.00
3 x 8½	2.70	3.75	6x15	10.00	12.25	12x25	41.00	46.00
2½x 9	3.25	4.50	7x15	10.00	12.25	14x25	41.00	46.00
3 x 9	3.25	4.50	8x15	10.00	12.25	15x25	41.00	46.00
3½x 9	3.25	4.50	7x16	11.50	14.00	16x25	41.00	46.00
3 x 9½	3.75	5.00	8x16	11.50	14.00	14x27½	45.00	51.00
3½x 9½	3.75	5.00	9x16	11.50	14.00	15x27½	45.00	51.00
4 x 9½	3.75	5.00	8x19	15.75	18.75	16x27½	45.00	51.00
3½x10	4.25	5.50	9x19	15.75	18.75	18x27½	45.00	51.00
4 x10	4.25	5.50	10x19	15.75	18.75	16x29½	50.00	58.50
4½x10	4.25	5.50	9x21	20.00	24.00	18x29½	50.00	58.50
4 x11	4.75	6.00	10x21	20.00	24.00	20x29½	50.00	58.50
4½x11	4.75	6.00	12x21	20.00	24.00	18x32	61.00	70.00
5 x11	4.75	6.00	10x22½	27.00	31.50	20x32	61.00	70.00
4½x12½	6.50	8.50	12x22½	27.00	31.50	.....	.....	.....

Reducing Flanged Fittings.

It is not possible to carry in stock a line of Reducing Flanged Fittings sufficiently large to meet all demands promptly. We aim to carry a complete line of straight sizes and a moderate line of Reducing Tees, but we do not attempt to cover all possible sizes. These Flanges, used in connection with Straight or Reducing Fittings carried in stock, enable us to fill orders for reduced sizes very promptly.

To avoid delay, we carry in stock a line of Reducing Ribbed Flanges as illustrated above.

Customers who desire fittings reduced in this manner will please specify "Reduce by Flanges if necessary."

Reducing Flanges are carried in stock as per table above.

These Flanges will always be the same thickness as the regular companion flanges of corresponding outside diameter.

See template for drilling page 95.

The Flanges are always drilled to the template corresponding to the outside diameter unless otherwise ordered.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

DIMENSIONS OF STANDARD FLANGES.

For 125 Pounds Working Pressure.

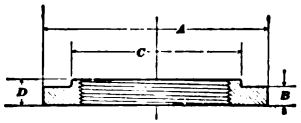

FIG. 255.

FIG. 256.

2 in. to 20 in. Screwed.

22 in. and 24. in. Shrink.

Size .... inches	1	1¼	1½	2	2½	3	3½	4	4½	5	6	7
Diameter of Flange, A	4	4½	5	6	7	7½	8½	9	9¼	10	11	12½
Thickness of Flange, B	7/16	½	9/16	5/8	11/16	¾	13/16	15/16	15/16	15/16	1	1 1/16
Diameter of Hub....C	1 15/16	2 5/16	2 5/8	3⅛	3 5/8	4 5/16	4 7/8	5 3/8	5 13/16	6 7/16	7 9/16	8 5/8
Length of Thread....D	1 1/16	¾	⅞	1	1 1/16	1⅛	1 3/16	1 3/16	1¼	1 5/16	1 7/16	1½
Diameter of Hub.....E	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Length of Hub .....F	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Size .....inches	8	9	10	12	14	15	16	18	20	22	24	.....
Diameter of Flange. A	13½	15	16	19	21	22¼	23½	25	27½	29½	32	.....
Thickness of Flange. B	1⅛	1⅛	1 3/16	1¼	1⅜	1⅜	1 7/16	1 9/16	1 11/16	1 13/16	1⅞	.....
Diameter of Hub.....C	9 11/16	10 5/8	11 15/16	14⅛	16 7/16	16 7/16	17½	19 9/16	21¾	.....	.....	.....
Length of Thread....D	1 5/8	1¾	1⅞	2 1/16	2 5/16	2 5/16	2 7/16	2 5/8	2¾	.....	.....	.....
Diameter of Hub ...E	.....	...	.....	.....	....	.....	.....	.....	....	24¼	26⅜	.....
Length of Hub.....F	.....	.....	.....	.....	.....	.....	.....	.....	....	4¼	4½	.....

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DIMENSIONS OF STANDARD FLANGED FITTINGS.

For 125 Pounds Working Pressure.

REDUCING FITTINGS NOT COVERED IN THIS TABLE WILL BE FOUND ON PAGE 94.

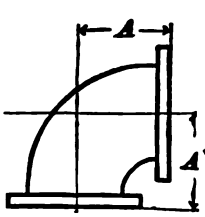

FIG. 257

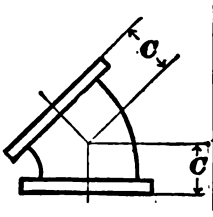

FIG. 258.

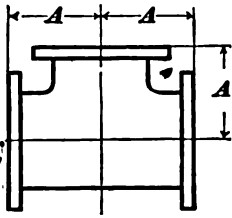

FIG. 259.

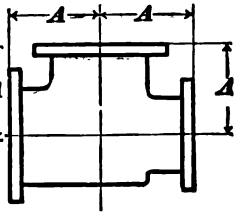

FIG. 260.

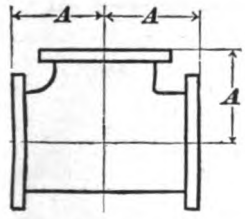

FIG. 261.

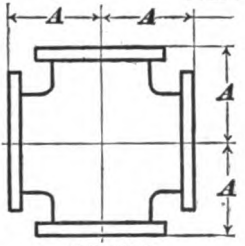

FIG. 262.

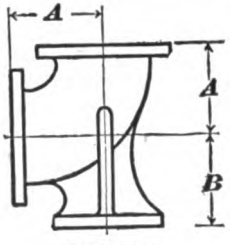

FIG. 263.

Size of Run	Inches.	2	2½	3	3½	4	4½	5	6	7	8	9
Outlets	Inches.	All Reducing Fittings 2" to 9" inclusive are the same dimens'ns as straight fittings centre to face										
Face to Face	A A	9	10	11	12	13	14	15	16	17	18	20
Center to Face	A	4½	5	5½	6	6½	7	7½	8	8½	9	10
Center to Face of 45° Ells	C	2½	3	3	3½	4	4	4½	5	5½	5½	6
Center to Base of Base Ells	B	5	5½	5¾	6½	6½	6¾	7	7½	8½	8¾	9½
Diameter of Flanges	.....	6	7	7½	8½	9	9½	10	11	12⅜	13½	15
Thickness of Flanges	.....	9/16	11/16	3/4	13/16	15/16	15/16	15/16	1	1 1/16	1 1/8	1 1/8
Diameter of Run	Inches.	10	12	14	15	16	.....	.....	.....	.....	.....	.....
Outlets	Inches.	7 and larger	9 and larger	10 and larger	10 and larger	12 and larger	.....	.....	.....	.....	.....	.....
Face to Face	A A	22	24	28	29	30	.....	.....	.....	.....	.....	.....
Center to Face	A	11	12	14	14½	15	.....	.....	.....	.....	.....	.....
Center to Face of 45° Ells	C	6½	7½	7½	8	8	.....	.....	.....	.....	.....	.....
Center to Base of Base Ells	B	10	10½	13½	14	14¾	.....	.....	.....	.....	.....	.....
Diameter of Flanges	.....	16	19	21	22¼	23½	.....	.....	.....	.....	.....	.....
Thickness of Flanges	.....	1 3/16	1¼	1⅜	1⅜	1 7/16	.....	.....	.....	.....	.....	.....

Tees Increasing on the Outlet.

Tees having outlets larger than the run will be the same length center to face of all openings as a Tee with all openings of the size of the outlet

Example.

A 12" x 12" x 16" Tee will be governed by the dimensions of the 16 inch Tee, namely, 15 inches center to face of all openings, and 30 inches face to face.

The face to face dimensions of Flanged Fittings are not changed by a reduction on the run.

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DIMENSIONS OF STANDARD FLANGED FITTINGS.

For 125 Pounds Working Pressure.

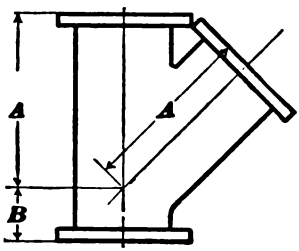

FIG. 264.

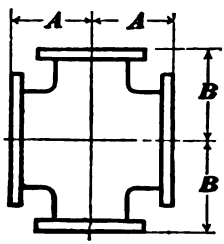

FIG. 265

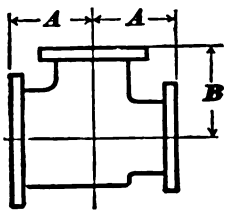

FIG. 266.

Standard Flanged Laterals or Y's.

Size.....inches	2	2½	3	3½	4	4½	5	6	7
Face to Face.....inches	10½	12	13	14½	15	15½	17	18	20½
Center to Face, A.....inches	8	9½	10	11½	12	12½	13½	14½	16½
Center to Face, B.....inches	2½	2½	3	3	3	3	3½	3½	4
Diameter of Flanges, inches	6	7	7½	8½	9	9¼	10	11	12½
Thickness of Fl'ges, inches	5/8	11/16	3/4	13/16	13/16	15/16	15/16	1	1 1/16

Size.....inches	8	9	10	12	14	15	16	.....	.....
Face to Face.....inches	22	24	25½	30	33	34½	36½	.....	.....
Center to Face, A.....inches	17½	19½	20½	24½	27	28½	30	.....	.....
Center to Face, B ....inches	4½	4½	5	5½	6	6	6½	.....	.....
Diameter of Flanges..inches	13½	15	16	19	21	22¼	23½	.....	.....
Thickness of Fl'ges,.inches	1⅛	1⅛	1 3/16	1¼	1⅜	1⅜	1 7/16	.....	.....

Reducing Laterals being made to order, we are unable to give dimensions.

Standard Flanged Tees and Crosses.

HAVING OUTLET SMALLER THAN SHOWN ON PAGE 93.

Size of Run .....inches	10	12	14	15	16
Outlets .....inches	6 and smaller	8 and smaller	9 and smaller	9 and smaller	10 and smaller
Face to Face.....AA	18	20	22	23	24
Center to Face.....A	9	10	11	11½	12
Center to Face.....B	9½	11	13	13½	14
Diameter of Flanges.....	16	19	21	22¼	23½
Thickness of Flanges.....	1 3/16	1¼	1⅜	1⅜	1 7/16

The face to face dimensions of Flanged Fittings are not changed by a reduction on the run.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CRANES STANDARD DIAMETER OF FLANGES AND TEMPLATES

FOR DRILLING STANDARD AND LOW PRESSURE FLANGED VALVES, FITTINGS AND FLANGES.

Size, Inches.	Diameter of Flanges. Inches.	Bolt Circle. Inches.	Number of Bolts.	Size of Bolts.	Length of Bolts for Standard.	Length of Bolts for Low Pressure.
1	4	3	4	$\frac{7}{16}$	$1\frac{1}{2}$	.....
$1\frac{1}{4}$	$4\frac{1}{2}$	$3\frac{3}{8}$	4	$\frac{7}{16}$	$1\frac{1}{2}$	.....
$1\frac{1}{2}$	5	$3\frac{7}{8}$	4	$\frac{7}{16}$	$1\frac{3}{4}$	.....
2	6	$4\frac{3}{4}$	4	$\frac{7}{16}$	2	.....
$2\frac{1}{2}$	7	$5\frac{1}{2}$	4	$\frac{7}{16}$	$2\frac{1}{4}$	.....
3	$7\frac{1}{2}$	6	4	$\frac{7}{16}$	$2\frac{1}{2}$	.....
$3\frac{1}{2}$	$8\frac{1}{2}$	7	4	$\frac{7}{16}$	$2\frac{1}{2}$	.....
4	9	$7\frac{1}{2}$	4	$\frac{7}{16}$	$2\frac{3}{4}$	.....
$4\frac{1}{2}$	$9\frac{1}{4}$	$7\frac{3}{4}$	8	$\frac{7}{16}$	3	.....
5	10	$8\frac{1}{2}$	8	$\frac{7}{16}$	3	.....
6	11	$9\frac{1}{2}$	8	$\frac{7}{16}$	3	.....
7	$12\frac{1}{2}$	$10\frac{3}{4}$	8	$\frac{7}{16}$	$3\frac{1}{4}$	.....
8	$13\frac{1}{2}$	$11\frac{3}{4}$	8	$\frac{7}{16}$	$3\frac{1}{2}$	.....
9	15	$13\frac{1}{4}$	12	$\frac{7}{16}$	$3\frac{1}{2}$	.....
10	16	$14\frac{1}{4}$	12	$\frac{7}{16}$	$3\frac{3}{4}$	.....
12	19	17	12	$\frac{7}{8}$	$3\frac{3}{4}$	$2\frac{3}{4}$
14	21	$18\frac{3}{4}$	12	1	$4\frac{1}{4}$	3
15	$22\frac{1}{4}$	20	16	1	$4\frac{1}{4}$	3
16	$23\frac{1}{2}$	$21\frac{1}{4}$	16	1	$4\frac{1}{4}$	$3\frac{1}{2}$
18	25	$22\frac{3}{4}$	16	$1\frac{1}{8}$	$4\frac{3}{4}$	$3\frac{1}{2}$
20	$27\frac{1}{2}$	25	20	$1\frac{1}{8}$	5	$3\frac{3}{4}$
22	$29\frac{1}{2}$	$27\frac{1}{4}$	20	$1\frac{1}{4}$	$5\frac{1}{2}$	4
24	32	$29\frac{1}{2}$	20	$1\frac{1}{4}$	$5\frac{1}{2}$	$4\frac{1}{2}$
26	$34\frac{1}{4}$	$31\frac{3}{4}$	24	$1\frac{1}{4}$	$5\frac{3}{4}$	$4\frac{1}{2}$
28	$36\frac{1}{2}$	34	28	$1\frac{1}{4}$	6	$4\frac{1}{2}$
30	$38\frac{3}{4}$	36	28	$1\frac{3}{8}$	$6\frac{1}{4}$	$4\frac{3}{4}$
36	$45\frac{3}{4}$	$42\frac{3}{4}$	32	$1\frac{3}{8}$	$6\frac{1}{2}$	$5\frac{1}{4}$

NOTE.— Flanges, Flanged Fittings, Valves, etc., are drilled in multiples of four, so that fittings may be made to face in any quarter and holes straddle center-line.

We will furnish Fittings, Valves, etc., drilled to any other template desired, but would advise that the Crane Standard Template be used.

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GASKETS.

CLOTH INSERTION. RAINBOW. CORRUGATED COPPER.

FOR STANDARD FLANGED FITTINGS AND VALVES.

Gasket Rings,
I-16 INCH THICK.

Full Gaskets,
I-16 INCH THICK.

Size, Inches.	Inside Diameter of Gaskts Inches.	Outside Diameter of Gaskts Inches.	PRICE. Cloth Insertion Gaskts Each.	Rainbow Gaskts Each.	Corrugated Copp'r Each.	Size, Inches.	Inside Diameter of Gaskts Inches.	Outside Diameter of Gaskts Inches.	PRICE. Cloth Insertion Gaskts Each.	Rainbow Gaskets. Each.	Corrugated Copper. Each.
2	2	4	.30	.45	.45	2	2	6	.70	.85	.85
2½	2½	5	.40	.55	.55	2½	2½	7	.90	1.10	1.10
3	3	5½	.45	.65	.65	3	3	7½	1.30	1.75	1.75
3½	3½	6½	.50	.75	.75	3½	3½	8½	1.40	1.85	1.85
4	4	6¾	.65	.90	.90	4	4	9	1.60	2.00	2.00
4½	4½	7	.70	1.00	1.00	4½	4½	9¼	1.75	2.25	2.25
5	5	7¾	.75	1.10	1.10	5	5	10	1.90	2.50	2.50
6	6	8¾	.80	1.30	1.30	6	6	11	2.50	3.00	3.00
7	7	10	1.00	1.60	1.60	7	7	12½	2.75	3.50	3.50
8	8	11	1.40	2.25	2.25	8	8	13½	3.50	4.50	4.50
9	9	12½	1.50	2.75	2.75	9	9	15	4.25	5.50	5.50
10	10	13¼	1.75	3.00	3.00	10	10	16	5.00	6.00	6.00
12	12	16	2.50	4.25	4.25	12	12	19	6.50	8.00	8.00
14	14	17¾	2.75	5.00	5.00	14	14	21	7.00	8.50	8.50
15	15	19	2.90	5.25	5.25	15	15	22¼	7.25	9.00	9.00
16	16	20¼	3.00	5.50	5.50	16	16	23½	7.50	9.25	9.25
18	18	21¾	3.50	6.00	6.00	18	18	25	9.00	11.00	11.00
20	20	24	4.00	6.50	6.50	20	20	27½	9.50	11.50	11.50
22	22	26	4.50	7.50	7.50	22	22	29½	11.00	13.50	13.50
24	24	28¼	5.50	8.50	8.50	24	24	32	14.00	16.50	16.50

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CAST IRON DRAINAGE FITTINGS.

Screwed.

90° ELBOW.

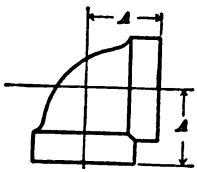

FIG. 267.

90° LONG TURN ELBOW

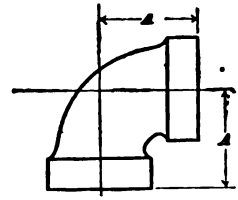

FIG. 266.

90° Elbows, Black and Galvanized.

Size.....inches	1¼	1½	2	2½	3	4	5	6	7	8	10
Price, Black ....each	.45	.50	.60	.90	1.10	1.70	2.60	3.50	6.00	7.00	9.00
Price, Galv.....each	.90	1.00	1.20	1.80	2.20	3.40	5.20	7.00	12.00	14.00	18.00
Dimensions A.....in.	1¾	2 3/16	2⅜	2 11/16	3 3/16	3 11/16	4½	5 3/16	5 11/16	6½	.....

90° Long Turn Elbows, Black and Galvanized.

Size.....inches	1¼	1½	2	2½	3	4	5	6	7	8	10
Price, Black....each	.50	.60	.70	1.10	1.30	2.00	3.60	5.20	8.50	10.00	12.00
Price, Galv.....each	1.00	1.20	1.40	2.20	2.60	4.00	7.20	10.40	17.00	20.00	24.00
Dimensions A.....in.	2¼	2½	3 1/16	3 11/16	4¼	5 3/16	6⅛	7⅛	8⅛	9	.....

60° ELBOW.

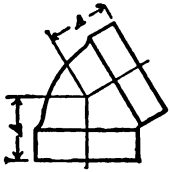

FIG. 269

45° ELBOW.

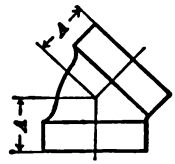

FIG. 270.

60° Elbows, Black and Galvanized.

Size.....inches	1½	2	2½	3	4	5	6	7	8	10
Price, Black.....each	.50	.60	.90	1.10	1.70	2.60	3.50	6.00	7.00	9.00
Price, Galv.....each	1.00	1.20	1.80	2.20	3.40	5.20	7.00	12.00	14.00	18.00
Dimensions A.....in.	1¾	2	2½	2 7/16	3⅜	3⅞	4 3/16	4½	5⅜	.....

45° Elbows, Black and Galvanized.

Size.....inches	1¼	1½	2	2½	3	4	5	6	7	8	10
Price, Black....each	.45	.50	.60	.90	1.10	1.70	2.60	3.50	6.00	7.00	9.00
Price, Galv.....each	.90	1.00	1.20	1.80	2.20	3.40	5.20	7.00	12.00	14.00	18.00
Dimensions A ...in.	1⅜	1 7/16	1¾	2 1/16	2⅝	2¾	3 3/16	3½	3⅞	4 5/16	.....

The 90° Elbows and Long Turn 90° Elbows are tapped, pitched ¼ inch to the foot.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CAST IRON DRAINAGE FITTINGS.

Screwed.

45° LONG TURN ELBOW

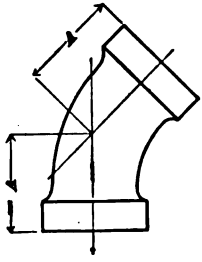

FIG. 271.

22½° ELBOW.

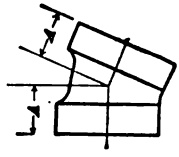

FIG. 272.

45° Long Turn Elbows, Black and Galvanized.

Size.....inches	1½	2	3	4	5	6	7	8	10
Price, Black.....each	.70	.80	1.45	2.25	4.00	5.75	9.50	11.00	13.50
Price, Galvanized.....each	1.40	1.60	2.90	4.50	8.00	11.50	19.00	22.00	27.00
Dimensions, A.....inches	1 7/8	2¼	2 7/8	3 7/16	.....	4 7/8	.....	.....	.....

22½° Elbows, Black and Galvanized.

Size.....inches	1½	2	3	4	5	6	7	8	10
Price, Black.....each	.50	.60	1.10	1.70	2.60	3.50	6.00	7.00	9.00
Price, Galvanized....each	1.00	1.20	2.20	3.40	5.20	7.00	12.00	14.00	18.00
Dimensions, A.....inches	1¼	1 7/16	2	2 5/16	2⅝	2 15/16	3¼	3 9/16	.....

11¼° ELBOW.

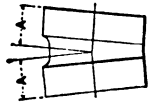

FIG. 273.

5⅝° ELBOW.

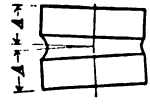

FIG. 274.

11¼° Elbows, Black and Galvanized.

Size.....inches	1½	2	2½	3	4	5	6	7	8	10
Price. Black.....each	.50	.60	.90	1.10	1.70	2.60	3.50	6.00	7.00	9.00
Price, Galv.....each	1.00	1.20	1.80	2.20	3.40	5.00	7.00	12.00	14.00	18.00
Dimensions, A...inch	1 7/32	1 3/4	1 21/32	1 13/16	2⅛	2⅜	2½	.....	.....	.....

5⅝° Elbows, Black and Galvanized.

Size.....inches	1½	2	3	4	5	6	7	8	10
Price, Black.....each	.50	.60	1.10	1.70	2.60	3.50	6.00	7.00	9.00
Price, Galvanized.....each	1.00	1.20	2.20	3.40	5.20	7.00	12.00	14.00	18.00
Dimensions, A.....inches	... ..	.....	.....	2	2¼	2 7/16	.....	.....	.....

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CAST IRON DRAINAGE FITTINGS.

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STRAIGHT THREE WAY ELBOW.

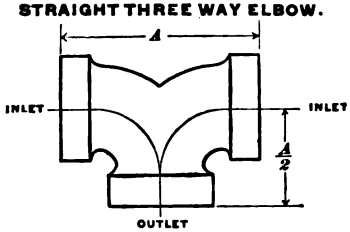

FIG. 275.

REDUCING THREE WAY ELBOW

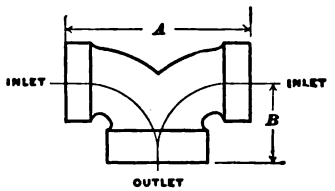

FIG. 276.

Straight Three Way Elbows, Black and Galvanized.

Size ..... inches	1½	2	3	4	5	6
Price, Black ..... each	1.00	1.30	2.20	3.10	4.25	6.50
Price, Galvanized ..... each	2.00	2.60	4.40	6.20	8.50	13.00
Dimensions A ..... inches	5¼	6¼	8⅝	10⅜	12¼	14¼
Dimensions A/2 ..... inches	2⅝	3⅛	4 5/16	5 3/16	6⅛	7⅛

Reducing Three Way Elbows, Black and Galvanized.

Size ..... inches	4x3	5x4	6x4	6x5
Price, Black .. each	3.10	4.25	6.50	6.50
Price, Galvanized ..... each	6.20	8.50	13.00	13.00
Dimensions A ..... inches	9½	11⅜	12⅜	13⅜
Dimensions B ..... inches	4 5/16	5 5/16	5 7/16	6¼

The inlets of Three Way Elbows are tapped, pitched ¼ inch to the foot.
The inlets on Reducing Fittings are always the smallest openings.

CLOSET ELBOW, FLANGED ONE END.

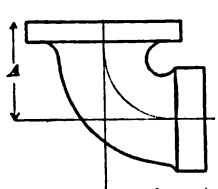

FIG. 277.

REDUCING CLOSET ELBOW.

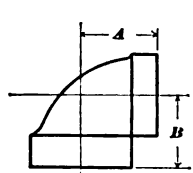

FIG. 278.

Closet Elbows, Black and Galvanized.

Flanged One End.

Size .... inches	4
Price, Black ..... each	2.50
Price, Galvanized ..... each	5.00
Dimensions A ..... inches	3 3/16
Diameter of Flange ..... inches	10

Reducing.

Size ..... inches	4x5
Price, Black ..... each	3.70
Price, Galvanized ..... each	7.40
Dimensions A ..... inches	4 7/16
Dimensions B ..... inches	3 3/16

Closet Elbows are tapped, pitched ¼ inch to the foot.

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CAST IRON DRAINAGE FITTINGS.

CAST IRON CLOSET FLANGE.
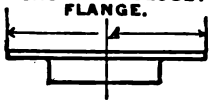
FIG 279.

Screwed.

BRASS CLOSET FLANGE.

FIG 260.

Closet Flanges.

Cast Iron, Black and Galvanized.

Size.....inches	4	5
Price, Black.....each	1.30	1.30
Price, Galvanized.....each	2.60	2.60
Diameter of Flange A..inches	10	10

Brass.

Size.....inches	5
Price.....each	3.20
Diameter of Flange A..inches	7½

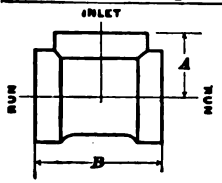

FIG. 281.

Tees.

Black and Galvanized.

Size.....inches	1½	2	2x1½	3	3x2	4	4x2	4x3	5
Price, Black.....each	.75	.90	.90	1.40	1.40	2.30	2.30	2.30	4.00
Price, Galvanized.....each	1.50	1.80	1.80	2.80	2.80	4.60	4.60	4.60	8.00
Dimensions A.....inches	.....	2 5/16	2¼	3 3/16	3	3 13/16	3 9/16	3¾	4 5/8
Dimensions B..... inches	.....	4 5/8	4¼	6 3/8	5½	7 1 3/16	6	7	9¼

Size.....inches	5x2	5x3	6	7	8	10	.....	.....	.....
Price, Black.....each	4.00	4.00	6.00	9.00	12.00	18.00	.....	.....	.....
Price, Galvanized.....each	8.00	8.00	12.00	18.00	24.00	36.00	.....	.....	.....
Dimensions A.....inches	4 3/16	4 3/8	.....	.....	.....	.....	.....	.....	.....
Dimensions B.....inches	6	6 7/8	.....	.....	.....	.....	.....	.....	.....

BASIN TEE.

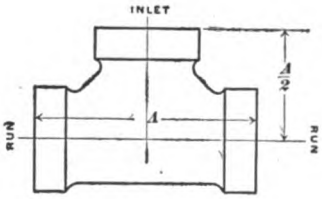

FIG. 282.

BASIN CROSS.

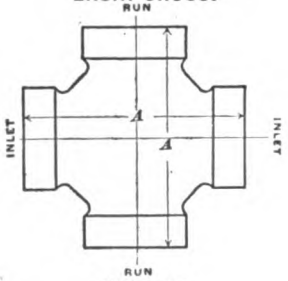

FIG. 283

Basin Tees and Crosses, Black and Galvanized

Basin Tees.

Size.....inches	1½	2	2x1½
Price, Black..... .each	1.25	1.35	1.35
Price, Galvanized....each	2.50	2.70	2.70
Dimensions A.....inches	5⅜	7	6½
Dimensions $\frac{A}{2}$....inches	2 1 1/16	3½	3¼

Basin Crosses.

Size.....inches	2	2x1½
Price, Black.....each	1.60	1.60
Price, Galvanized...each	3.20	3.20
Dimensions A.....inches	7	6½
Dimensions A.....inches	7	6½

The inlets of Tees, Basin Tees and Basin Crosses are tapped, pitched ¼ inch to the foot.

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STRAIGHT 90° Y BRANCH TEE PATTERN.

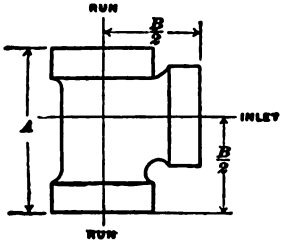

FIG. 284.

REDUCING 90° Y BRANCH TEE PATTERN.

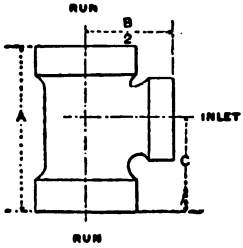

FIG. 285.

Straight 90° Y Branches, Black and Galvanized.

Size .....inches	1	1¼	1½	2	2½	3	4	5	6	7	8	10
Price, Black, each	.90	1.00	1.15	1.35	1.90	2.25	3.50	5.50	7.00	11.50	14.50	20.00
Price, Galv ..each	1.80	2.00	2.30	2.70	3.80	4.50	7.00	11.00	14.00	23.00	29.00	40.00
Dimensions A .....inches	3¼	3¾	4¼	5 5/16	6 5/16	7¼	8¾	10 5/16	11 11/16	13⅝	15 1/16	.....
Dimensions B/2 .. inches	1 15/16	2¼	2½	3 1/16	3 11/16	4¼	5 3/16	6⅛	7⅛	8⅛	9	.....
Dimensions B/2 ...inches	1 15/16	2¼	2½	3 1/16	3 11/16	4¼	5 3/16	6⅛	7⅛	8⅛	9	.....
												.....

Reducing 90° Y Branches, Black and Galvanized.

Size .....inches	1½x1¼	2x1½	2½x1¼	2½x1½	2½x2	3x1½	3x2	4x1½	4x2	4x2½	4x3	3x4	5x1½
Price, Black ..... each	1.15	1.35	1.90	1.90	1.90	2.25	2.25	3.50	3.50	3.50	3.50	3.50	5.50
Price, Galvanized...each	2.30	2.70	3.80	3.80	3.80	4.50	4.50	7.00	7.00	7.00	7.00	7.00	11.00
Dimensions A .....inches	3⅞	4⅝	4⅝	4⅞	5½	5 1/16	5 11/16	5¼	5 13/16	6⅝	7⅞	8⅝	5 9/16
Dimensions B/2 ..inches	2½	2 5/16	2 5/16	3 1/16	3 5/16	3 5/16	3⅝	3 13/16	4 1/16	4 7/16	4¾	5 3/16	4⅝
Dimensions C..... inches	2⅜	2 1/16	2½	2 1/16	3¼	2 1/16	3 5/16	3	3⅜	3 13/16	4 5/16	5⅛	3 3/16

Size.....inches	5x2	5x2½	5x3	5x4	6x2	6x3	6x4	6x5	8x3	8x4	10x3
Price, Black.....each	5.50	5.50	5.50	5.50	7.00	7.00	7.00	7.00	14.50	14.50	20.00
Price, Galvanized..each	11.00	11.00	11.00	11.00	14.00	14.00	14.00	14.00	29.00	29.00	40.00
Dimensions A ....inches	6⅛	6 1/16	7¾	9⅛	6¼	7⅞	9¼	10 9/16	11 7/16	11 7/16	20
Dimensions B/2 ..inches	4⅝	4⅞	5¼	5 1/16	5⅛	5¾	6 1/16	6⅝	7¼	7 1/16	8⅝
Dimensions C ....inches	3 9/16	4	4½	5⅜	3⅝	4 9/16	5 7/16	6¼	7 1/16	7½	15

The inlets of 90° Y Branches are tapped, pitched ¼ inch to the foot.

The inlets of Reducing Fittings are always the smallest openings.

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STRAIGHT 90° LONG TURN Y BRANCH, TEE PATTERN.

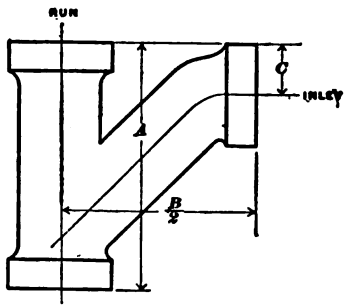

FIG. 286.

REDUCING 90° LONG TURN Y BRANCH, TEE PATTERN.

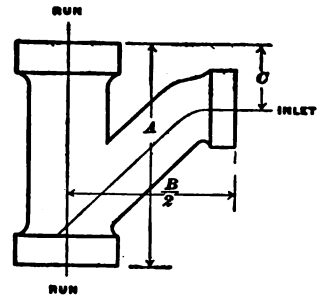

FIG. 287.

Straight 90° Long Turn Y Branches, Black and Galvanized.

Size.....inches	1¼	1½	2	2½	3	4	5	6	7	8
Price, Black.....each	1.00	1.15	1.35	1.90	2.25	3.50	5.50	7.00	11.50	14.50
Price, Galv.....each	2.00	2.30	2.70	3.80	4.50	7.00	11.00	14.00	23.00	29.00
Dimensions A..inches	4¾	5⅛	7 1/16	8¼	9 1/16	13¾	15⅞	18 1/16	21⅝	24 9/16
Dimensions B/2 inches	3⅝	4⅛	5 7/16	6¼	7½	9⅞	12¼	14 9/16	16⅞	19 5/16
Dimensions C.inches	1 3/16	1¼	1⅝	2	2 5/16	2⅞	3½	4⅛	4¾	5¼

Reducing 90° Long Turn Y Branches, Black and Galvanized.

Size .....inches	1½x1¼	2x1½	2½x1½	2½x2	3x1½	3x2	4x1½	4x2	4x2½	4x3	5x1½	5x2	5x3
Price, Black....each	1.15	1.35	1.90	1.90	2.25	2.25	3.50	3.50	3.50	3.50	5.50	5.50	5.50
Price, Galv.....each	2.30	2.70	3.80	3.80	4.50	4.50	7.00	7.00	7.00	7.00	11.00	11.00	11.00
Dimensions, A..inches	5⅛	5¾	5¾	7⅜	5 1/16	7 9/16	6 1/16	7 1/16	8⅝	10	6 1/16	7¾	10¼
Dimensions B/2 In.	3⅞	4⅜	4 9/16	5¾	5	6 1/16	5 7/16	6⅝	7 1/16	8 1/16	6	7⅛	8⅝
Dimensions, C..inches	1 3/16	1 5/16	1 5/16	1⅝	1 5/16	1⅝	1 5/16	1⅝	2	2⅜	1⅜	1⅝	2⅜

Size.....inches	5x4	6x2	6x3	6x4	6x5	7x3	7x4	7x5	7x6	8x3	8x4	.....
Price, Black...each	5.50	7.00	7.00	7.00	7.00	11.50	11.50	11.50	11.50	14.50	14.50	.....
Price, Galv...each	11.00	14.00	14.00	14.00	14.00	23.00	23.00	23.00	23.00	29.00	29.00	.....
Dimensions A...inches	13	7 1/16	10⅜	13 1/16	16 1/16	10⅞	13 5/16	.....	.....	10⅝	13⅜	.....
Dimensions B/2 inches	10 7/16	7¾	9⅛	11	12 1/16	9 1/16	11⅝	.....	.....	10¼	12	.....
Dimensions C...inches	2⅞	1⅝	2 5/16	2⅞	3½	2⅝	2⅞	.....	.....	2 5/16	2 5/16	.....

The inlets of 90° Long Turn Y Branches are tapped, pitched ¼ inch to the foot.

The inlets of Reducing Fittings are always the smallest openings.

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STRAIGHT 90° DOUBLE Y BRANCH TEE PATTERN.

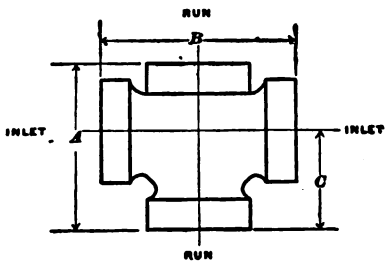

FIG. 288.

REDUCING 90° DOUBLE Y BRANCH TEE PATTERN.

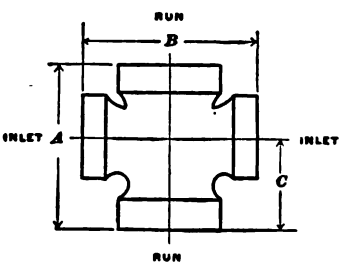

FIG. 289.

Straight 90° Double Y Branches, Black and Galvanized.

Size.....inches	1	1½	2	3	4	5	6
Price, Black.....each	1.00	1.25	1.50	3.00	4.00	6.50	8.50
Price, Galvanized.....each	2.00	2.50	3.00	6.00	8.00	13.00	17.00
Dimensions A.....inches	3¼	4¼	5 5/16	7¼	8¾	10 5/16	11 5/16
Dimensions B.....inches	3⅞	5	6⅛	8½	10⅜	12¼	14¼
Dimensions C.....inches	1 5/16	2½	3 1/16	4¼	5 3/16	6⅛	7⅛

Reducing 90° Double Y Branches, Black and Galvanized.

Size.....inches	3x2	4x2	5x4	6x2	6x4	6x5
Price, Black.....each	3.00	4.00	6.50	8.50	8.50	8.50
Price, Galvanized.....each	6.00	8.00	13.00	17.00	17.00	17.00
Dimensions A.....inches	5 1/16	5 1/16	9⅛	6¼	9¼	.....
Dimensions B.....inches	7¼	8¼	11⅜	10¼	12⅜	.....
Dimensions C.....inches	3 5/16	3⅜	5⅜	3⅝	5 7/16	.....

The inlets of Double 90° Y Branches are tapped, pitched ¼ inch to the foot.

The inlets of Reducing Fittings are always the smallest openings.

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STRAIGHT 90° LONG TURN DOUBLE Y BRANCH, TEE PATTERN.

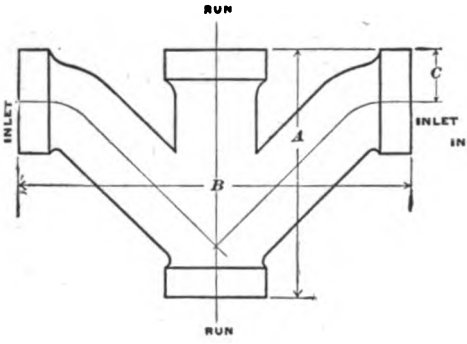

FIG. 290.

REDUCING 90° LONG TURN DOUBLE Y BRANCH, TEE PATTERN.

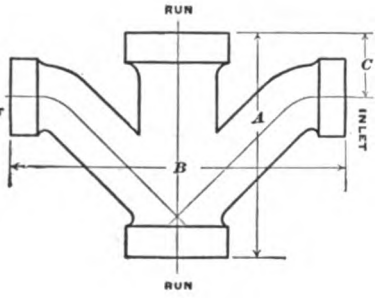

FIG. 291.

Straight 90° Long Turn Double Y Branches, Black and Galvanized.

Size..... inches	1½	2	2½	3	4	5	6	7	8
Price, Black.....each	1.25	1.50	2.25	3.00	4.00	6.50	8.50	15.00	18.00
Price, Galvanized....each	2.50	3.00	4.50	6.00	8.00	13.00	17.00	30.00	36.00
Dimensions A.....inches	5⅜	7 1/16	8¼	9 1/16	13¾	15¾	18 1/16	21⅝	24 9/16
Dimensions B.....inches	8¼	10⅞	12½	15	19¾	24½	29⅛	33¾	38⅝
Dimensions C.....inches	1¼	1⅝	2	2 5/16	2⅞	3½	4⅛	4¾	5¼

Reducing 90° Long Turn Double Y Branches, Black and Galvanized.

Size.....inches	3x2	4x2	5x4	6x2	6x4	6x5
Price, Black .....each	3.00	4.00	6.50	8.50	8.50	8.50
Price, Galvanized .....each	6.00	8.00	13.00	17.00	17.00	17.00
Dimensions A.....inches	7 7/16	7 1/16	13	7 1/16	13 1/16	16 1/16
Dimensions B.....inches	12⅛	13¼	20⅞	15½	22	25⅝
Dimensions C.....inches	1⅝	1⅝	2⅞	1⅝	2⅞	3½

The inlets of Double 90° Y Branches are tapped, pitched ¼ inch to the foot.

The inlets of Reducing Fittings are always the smallest openings.

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STRAIGHT 45° Y BRANCH

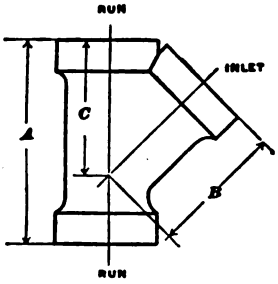

FIG. 292.

REDUCING 45° Y BRANCH.

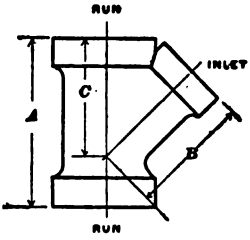

FIG. 293.

Straight 45° Y Branches, Black and Galvanized.

Size.....inches	1¼	1½	2	2½	3	4	5	6	7	8	10
Price, Black .....each	.70	.80	1.00	1.50	1.70	2.60	3.50	5.50	12.00	15.00	21.00
Price, Galv.....each	1.40	1.60	2.00	3.00	3.40	5.20	7.00	11.00	24.00	30.00	42.00
Dimensions A...inches	5	5½	6 7/16	7⅞	9	10⅞	12 1/16	14¾	16 1/16	18 1/16	20
Dimensions B...inches	3¼	3⅝	4 5/16	5⅛	6 3/16	7 1/16	9 1/16	10¾	12¼	13 9/16	16⅛
Dimensions C...inches	3¼	3⅝	4 5/16	5⅛	6 3/16	7 1/16	9 1/16	10¾	12¼	13 9/16	16⅛

Reducing 45° Y Branches, Black and Galvanized.

Size.....inches	2x1½	2½x1½	2½x2	3x1½	3x2	3x2½	4x1½	4x2	4x3	5x2	5x3
Price, Black .....each	1.00	1.50	1.50	1.70	1.70	1.70	2.60	2.60	2.60	3.50	3.50
Price, Galvanized....each	2.00	3.00	3.00	3.40	3.40	3.40	5.20	5.20	5.20	7.00	7.00
Dimensions, A.....inches	5⅞	6 7/16	7 1/16	6⅝	8	7⅜	7 1/16	7 11/16	9¼	8½	9 1/16
Dimensions, B.....inches	4⅛	4⅝	5⅛	5 1/16	5⅛	5 1/16	6 1/16	6 5/16	7 3/16	7 3/16	7⅞
Dimensions, C.....inches	4 1/16	4 9/16	4 13/16	4 5/16	5 5/16	5 11/16	5¾	6	6⅞	6⅞	7⅞

Size.....inches	5x4	6x2	6x3	6x4	6x5	7x3	7x4	7x5	7x6	8x4	8x6
Price, Black.....each	3.50	5.50	5.50	5.50	5.50	12.00	12.00	12.00	12.00	15.00	15.00
Price, Galvanized...each	7.00	11.00	11.00	11.00	11.00	24.00	24.00	24.00	24.00	30.00	30.00
Dimensions A .....inches	11⅜	8 7/16	10	11⅜	13	10	11 7/16	16 1/16	16 1/16	11 7/16	14 1/16
Dimensions B .....inches	8½	8 1/16	8¾	9⅜	10	9⅝	10½	10 1/16	11 5/16	11	12⅜
Dimensions C .....inches	8 7/16	7 9/16	8 5/16	9 1/16	9 13/16	8⅞	9 11/16	10½	11⅜	10 7/16	11⅞

The inlets of Reducing Fittings are always the smallest openings.

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STRAIGHT 45° DOUBLE Y BRANCH.

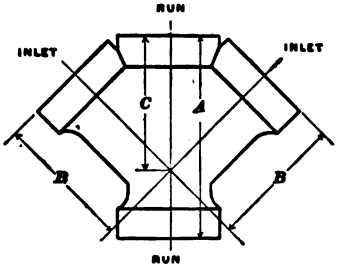

FIG. 294.

REDUCING 45° DOUBLE Y BRANCH.

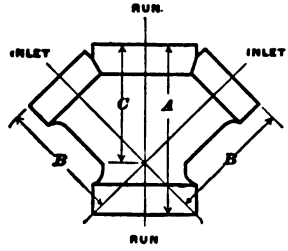

FIG. 295.

Straight 45° Double Y Branches, Black and Galvanized.

Size..... inches	1½	2	2½	3	4	5	6	7	8	10
Price, Black.....each	1.00	1.30	1.75	2.20	3.10	4.25	6.50	15.00	18.00	25.00
Price, Galvanized.....each	2.00	2.60	3.50	4.40	6.20	8.50	13.00	30.00	36.00	50.00
Dimensions.. A.....inches	5½	6 7/16	7 7/8	9	10 7/8	12 1 3/16	14 3/4	16 1 1/16	18 1 3/16	.....
Dimensions B.....inches	3 5/8	4 5/16	5 3/8	6 3/16	7 1 1/16	9 1/16	10 3/4	12¼	13 9/16	.....
Dimensions C.....inches	3 5/8	4 5/16	5 3/8	6 3/16	7 1 1/16	9 3/16	10 3/4	12¼	13 9/16	.....

Reducing 45° Double Y Branches, Black and Galvanized.

Size ..... inches	2x1½	2½x1½	3x1½	3x2	4x2	5x2	6x2
Price, Black.....each	1.30	1.75	2.20	2.20	3.10	4.25	6.50
Price, Galvanized.....each	2.60	3.50	4.40	4.40	6.20	8.50	13.00
Dimensions A..... inches	5⅞	6 7/16	6⅝	7⅜	7 1 1/16	8¼	8 7/16
Dimensions B..... inches	4⅛	4⅝	5 1/16	5⅜	6 5/16	7 3/8	8 1/16
Dimensions C..... inches	4 1/16	4 9/16	4 13/16	5 5/16	6	6⅞	7 9/16

The inlets of Reducing Fittings are always the smallest openings.

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CAST IRON DRAINAGE FITTINGS.

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REDUCING 60° Y BRANCH.

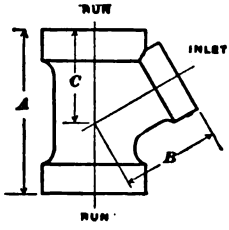

FIG. 298.

INCREASERS.

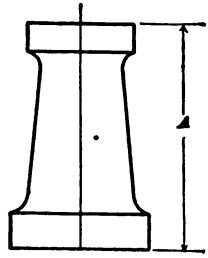

FIG. 297.

Reducing 60° Y Branches, Black and Galvanized.

Size ..... inches	2x1½	3x2	4x2	4x3	5x2	5x3	5x4	6x2	6x4	6x5	8x4	8x6
Price, Black.....each	1.00	1.70	2.60	2.60	4.50	4.50	4.50	7.00	7.00	7.00	15.00	15.00
Price, Galvanized...each	2.00	3.40	5.20	5.20	9.00	9.00	9.00	14.00	14.00	14.00	30.00	30.00
Dimensions A.....inches	$4\frac{15}{16}$	$6\frac{7}{16}$	$6\frac{11}{16}$	.....	.....	$8\frac{1}{2}$	.....	.....	.....	.....	.....	.....
Dimensions B.....inches	$3\frac{1}{16}$	$4\frac{1}{8}$	$4\frac{3}{4}$	.....	.....	6	.....	.....	.....	.....	.....	.....
Dimensions C.....inches	$2\frac{15}{16}$	$3\frac{15}{16}$	$4\frac{5}{16}$	.....	.....	$5\frac{9}{16}$	.....	.....	.....	.....	.....	.....

Increasers, Black and Galvanized.

Size.....inches	3x2	4x2	4x3	5x2	5x3	5x4	6x4	6x5	8x6
Price, Black.....each	1.00	1.50	1.50	2.00	2.00	2.00	3.00	3.00	5.00
Price, Galvanized..each	2.00	3.00	3.00	4.00	4.00	4.00	6.00	6.00	10.00
Dimensions A...inches	9	9	9	9	9	9	9	9	9

The inlets of Reducing Fittings are always the smallest openings.

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CAST IRON DRAINAGE FITTINGS.

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Closet Tees.

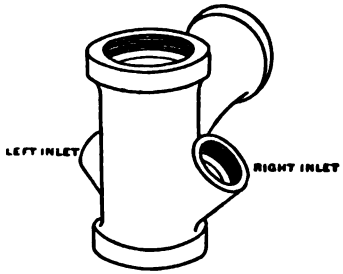

FIG. 298.

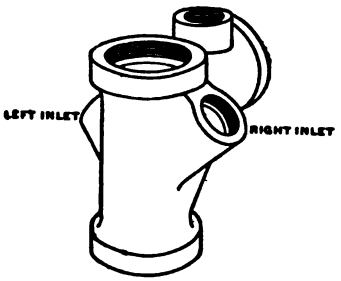

FIG. 299.

Closet Tees or 90° Y Branches, Black and Galvanized with Auxiliary Inlets.

Size.....inches	3	4	5x4	6x4
Price, Black, with 2-inch inlet on right side only.each	3.00	3.50	6.50	8.00
Price, Galv., with 2 inch inlet on right side only.each	6.00	7.00	13.00	16.00
Price, Black, with 2-inch inlet on left side only..each	3.00	3.50	6.50	8.00
Price, Galv., with 2-inch inlet on left side only..each	6.00	7.00	13.00	16.00
Price, Black, with 2-inch inlet on both sides.....each	3.50	4.00	7.00	10.00
Price, Galv., with 2-inch inlet on both sides.....each	7.00	8.00	14.00	20.00
Price, Black, with 2-inch inlet on right side and 2-inch top inlet.....each	.....	5.50	7.00	9.00
Price, Galv., with 2-inch inlet on right side and 2-inch top inlet.....each	.....	11.00	14.00	18.00
Price, Black, with 2-inch inlet on left side and 2-inch top inlet.....each	.....	5.50	7.00	9.00
Price, Galv., with 2-inch inlet on left side and 2-inch top inlet..... each	.....	11.00	14.00	18.00
Price, Black, with 2-inch inlet on both sides and 2-inch top inlet..... ..... each	.....	6.00	7.50	10.00
Price, Galv., with 2-inch inlet on both sides and 2-inch top inlet.....each	.....	12.00	15.00	20.00

The 90° inlet of Closet Tees is tapped, pitched ¼ inch to the foot.

The inlets of Reducing Fittings are always the smallest openings.

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OFFSET.

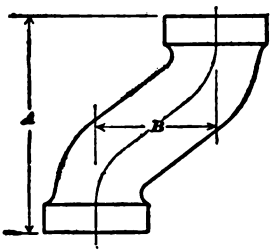

FIG. 300.

Offsets, Black and Galvanized.

Size.....inches	2	2	2	2	3	3	3	3	4	4	4
Price, Black .....each	1.75	2.00	2.25	2.75	2.75	3.25	3.75	4.25	4.00	4.50	5.00
Price, Galvanized ..each	3.50	4.00	4.50	5.50	5.50	6.50	7.50	8.50	8.00	9.00	10.00
Dimensions A, Lgth..in.	7½	9½	11½	13½	8¾	10¾	12¾	14¾	9¾	11¾	13¾
Dimensions B, Offset in.	4	6	8	10	4	6	8	10	4	6	8

Size.....inches	4	4	5	5	5	5	6	6	6	6	.....
Price, Black .....each	5.75	6.50	7.50	8.50	9.50	10.50	10.00	11.00	12.00	13.50	.....
Price, Galvanized..each	11.50	13.00	15.00	17.00	19.00	21.00	20.00	22.00	24.00	27.00	.....
Dimensions A, Lgth..in.	15¾	17¾	12⅝	14⅝	16⅝	18⅝	13⅝	15⅝	17⅝	19⅝	.....
Dimensions B, Offset in.	10	12	6	8	10	12	6	8	10	12	.....

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CAST IRON DRAINAGE FITTINGS.

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ROOF CONNECTION.

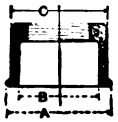

FIG. 301.

CAPPING FOR AIR INLET.

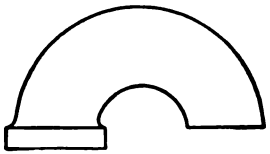

FIG. 302

BRASS SOLDERING NIPPLE

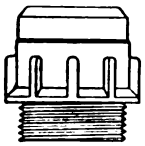

FIG. 303.

Roof Connections, Black and Galvanized.

Size.....inches	2	3	4	5	6
Price, Black.....each	.50	.80	1.00	1.20	2.00
Price, Galvanized.....each	1.00	1.60	2.00	2.40	4.00
Dimensions A.....inches	.....	4 1/16	6	7 1/16	8 3/16
Dimensions B.....inches	.....	4 1/8	5 1/4	6	7 1/8
Dimensions C.....inches	.....	4 9/16	5 5/8	6 1/16	7 3/4

Cappings for Air Inlets.

Size.....inches	2	3	4	5
Price.....each	1.20	1.30	1.50	2.00

Brass Soldering Nipples.

Size.....inches	1	1 1/4	1 1/2	2	3	4
Price.....each	.42	.63	.84	1.17	2.34	4.00

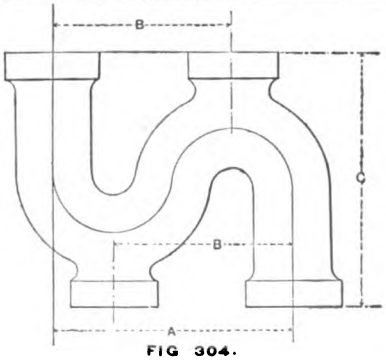

FIG 304.

S. Traps.

Black and Galvanized.

Size.....inches	2	3	4	5	6
Price, Black.....each	3.50	4.00	6.50	10.00	20.00
Price, Galvanized.....each	7.00	8.00	13.00	20.00	40.00
Dimensions A.....inches	8 1/2	10 3/4	14 1/8	.....	.....
Dimensions B.....inches	6 1/4	8 1/16	10 3/8	.....	.....
Dimensions C.....inches	8	11 1/4	13 3/4	.....	.....
Size of Cleanout.....inches	1	1 1/4	2	2	2
Size of Vents.....inches	2	3	4	4	4

Cappings and S Traps are not carried in stock, but made to order.

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HALF S TRAP.

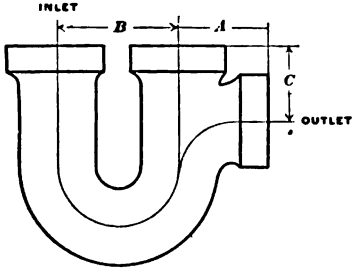

FIG. 305.

RUNNING TRAP.

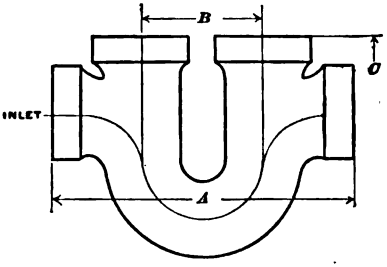

FIG. 306.

Half S Traps, Black and Galvanized.

Size .....inches	2	3	4	5	6	8
Price, Black.....each	2.25	3.00	4.50	7.50	14.00	22.00
Price, Galvanized.....each	4.50	6.00	9.00	15.00	28.00	44.00
Dimensions A .....inches	$3\frac{1}{16}$	$4\frac{3}{16}$	$5\frac{1}{8}$	$6\frac{1}{16}$	$6\frac{9}{16}$	$8\frac{15}{16}$
Dimensions B .....inches	4	$5\frac{3}{8}$	7	$8\frac{3}{8}$	$10\frac{1}{8}$	$12\frac{3}{8}$
Dimensions C .....inches	$2\frac{9}{16}$	$3\frac{1}{2}$	$4\frac{3}{16}$	$4\frac{3}{4}$	$5\frac{7}{16}$	$6\frac{3}{4}$
Size of Vent.....	2	3	4	4	4	6

Running Traps, Black and Galvanized.

Size .....inches	2	3	4	5	6	8
Price, Black.....each	2.40	3.50	5.00	8.00	15.00	25.00
Price, Galvanized.....each	4.80	7.00	10.00	16.00	30.00	50.00
Dimensions A.....inches	$10\frac{1}{8}$	$13\frac{3}{4}$	$17\frac{1}{4}$	$20\frac{1}{2}$	$23\frac{1}{4}$	$30\frac{1}{4}$
Dimensions B.....inches	4	$5\frac{3}{8}$	7	$8\frac{3}{8}$	$10\frac{1}{8}$	$12\frac{3}{8}$
Dimensions C.....inches	$2\frac{9}{16}$	$3\frac{1}{2}$	$4\frac{3}{16}$	$4\frac{3}{4}$	$5\frac{7}{16}$	$6\frac{3}{4}$
Size of Vent	2	3	4	4	4	6

The outlet of Half S Traps and inlet and outlet of Running Traps are tapped, pitched $\frac{1}{4}$ inch to the foot.

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CAST IRON ANHYDROUS AND AQUA AMMONIA FITTINGS.

Gland Ends.

Straight and Reducing.

ELBOW.

FIG. 307.

TEE.

FIG. 308.

CROSS.

FIG. 309.

Elbows, Gland Ends, Straight and Reducing.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4	5
Price, Straight.....each	.50	.65	.80	1.05	1.60	2.15	3.05	4.20	6.80	11.00	12.00	14.00	20.25
Price. Reducing....each	.70	.90	1.05	1.40	2.10	2.70	3.80	5.35	8.30	13.50	15.00	18.00	25.00

Tees, Gland Ends, Straight and Reducing.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4	5
Price, Straight.....each	.75	1.05	1.20	1.55	2.50	3.00	4.40	7.75	11.00	15.50	18.00	19.00	25.00
Price, Reducing...each	.95	1.30	1.55	2.05	3.25	3.75	5.40	9.75	13.25	18.75	22.00	24.00	30.00

Crosses, Gland Ends, Straight and Reducing.

Size.....inches	⅜	½	¾	1	1¼
Price, Straight.....each	1.52	1.80	2.30	4.00	5.00
Price, Reducing..... .....each	1.75	2.25	3.00	5.00	6.00

RETURN BEND.

FIG. 310.

COUPLING.

FIG. 311.

UNION.

FIG. 312.

Return Bends, Gland Ends.

Size .....inches	¾	1	1¼	1½	1½	2	2	2½	3	4
Price.....each	1.50	2.00	3.00	5.00	5.00	6.20	6.20	7.50	9.50	16.75
Center to Center.....inches	2½	3½	3¾	3¾	4¼	5⅛	4¼	5¼	5¼	6½

Couplings, Gland Ends.

Size .....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4
Price .....each	.38	.53	.68	.90	1.20	1.50	2.15	2.80	4.80	6.20	9.00	12.00

Unions, Gland Ends.

Size .....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4
Price .....each	.38	.53	.68	.90	1.20	1.50	2.15	2.80	4.80	6.20	9.00	12.00

Prices of Reducing Tees and Crosses are for any one opening to one size.

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CAST IRON AMMONIA FITTINGS.

Gland Ends.

FLANGE UNION.

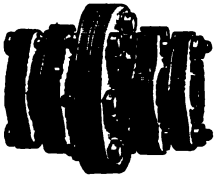

FIG. 313.

BRANCH TEE HEADERS.

FIG. 314.

Flange Unions, Gland Ends.

Size.....inches	½	¾	1	1¼	1½	2	2½	3	3½	4	5
Price..... each	3.35	4.30	5.35	6.60	8.25	11.40	14.00	15.50	20.00	24.00	29.00

Branch Tee Headers, Gland Ends

Number of Branches.....	3	4	5	6	7	8	9	10	11	12
Price, 1 in. Outlets 5 in., C to C.....each	7.75	9.25	10.50	12.00	13.25	14.50	16.00	17.25	18.75	20.00
Price, 1¼ in. Outlets 6 in., C to C....each	9.25	11.00	12.50	14.25	17.00	17.50	19.25	20.75	22.50	24.00
Price, 1½ in. Outlets 6 in., C to C....each	12.00	14.00	16.00	18.00	20.00	22.00	24.00	26.00	28.00	30.00

Back and Side Outlets ¾ to 2½ inches without extra charge. 1 inch Branch Headers can be furnished 10, 15 and 20 inch center to center. 1¼ and 1½ inch Branch Headers can be furnished 12, 18 and 24 inch center to center.

CAST IRON AMMONIA VALVES.

Gland Ends.

GLOBE VALVE.

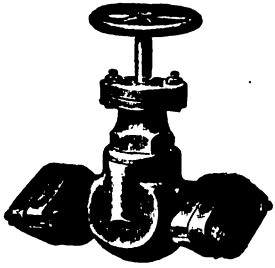

FIG. 315.

ANGLE VALVE.

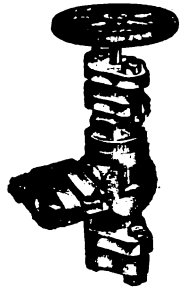

FIG. 316.

CHECK VALVE.

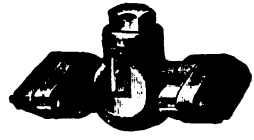

FIG. 317.

NEEDLE EXPANSION VALVE.

FIG. 318.

Globe, Angle and Check Valves, Gland Ends.

Size .....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4	5
Price, Globe or Angle, ea.	3.00	4.00	5.00	6.50	8.00	9.00	11.80	17.00	22.00	29.00	75.00	94.00	122.00
Price, Check.....ea.	2.15	3.00	3.50	4.50	7.50	8.50	9.50	10.25	15.00	18.50	60.00	70.00	.....

Globe and Angle Valves 3½, 4 and 5 inches can be furnished with gland or flanged ends, 1¼ to 3 inch with flanged ends.

Needle Expansion Valves, Gland Ends.

Size .....inches	¼	⅜	½	¾	1
Price, Globe or Angle .....each	4.50	6.00	7.50	9.75	12.00

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CAST IRON AMMONIA VALVES AND COCKS.

Gland Ends.

GATE VALVE, RENEWABLE SEAT RINGS.

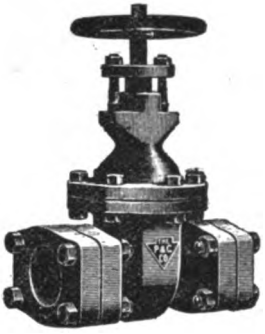

FIG. 319

STRAIGHTWAY SWINGING CHECK VALVE.

FIG. 320.

ASBESTOS PACKED COCK.

FIG. 321.

Gate Valves, Renewable Seat Rings, Gland Ends.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price..... .each	4.00	4.00	4.00	4.80	5.55	6.60	7.65	10.45	16.20	20.50

Sizes ¼ to 1½ inches have screwed hub, 2 to 3 inches Bolted Bonnet.

Gate Valves, Removable Soft Seats, De La Vergne Pattern.

Size .....inches	5	6	7	8
Price.....each	60.00	70.00	80.00	96.00

Straightway Swinging Check Valves, Gland Ends.

Size.....inches	½	¾	1	1¼	1½	2	2½	3	.....
Price.....each	2.80	3.10	3.40	4.00	4.85	5.90	13.00	17.00	.....

Sizes ½ to 1½ inches have screwed cap, 2 to 3 inches bolted cap.

Asbestos Packed Cocks, Gland Ends.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	2.10	2.25	2.45	3.10	3.65	4.75	6.10	8.65	15.50	23.00

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AMMONIA FITTINGS.

Gland Ends.

EXPANSION ASBESTOS PACKED COCK.

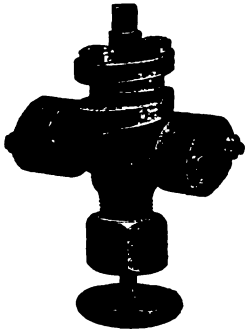

FIG 322.

AMMONIA STRAINER.

FIG 323.

BRASS BRINE COCK.

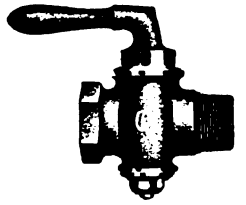

FIG. 324.

Expansion Asbestos Packed Cocks, Gland Ends.

Size.....inches	½	¾	1
Price.....each	7.10	8.50	11.15

Ammonia Strainers.

Size.....inches	1	1¼	1½	2
Price.....each	11.00	12.00	13.50	15.00

Brass Brine Cocks.

Size.....inches	½	¾	1	1¼
Price.....each	1.35	2.00	3.00	4.50

Automatic Ice Can Fillers.

Price, for 100 and 200 Pound Cans.....each	13.00
Price, for 300 Pound Cans.....each	15.00
Price, Nickel Plated, Extra.....each	3.00

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CAST IRON AMMONIA FITTINGS.

Plain and Recessed Ends, Screwed, Black and Galvanized.

ELBOW.

FIG. 625.

RETURN BEND

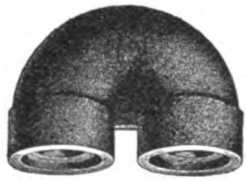

FIG. 326.

FLANGE UNION

FIG. 327.

JAM NUT.

FIG. 328

Elbows, Plain and Recessed Ends, Screwed, Black and Galvanized.

Size .....inches	¼	⅜	½	¾	1	1¼	1½	2	2½
Price, Plain Ends, Black, ..each	.20	.20	.25	.40	.60	.70	.90	1.15	2.25
Price, Plain Ends, Galv. ..each	.30	.30	.40	.55	.80	.90	1.15	1.40	2.75
Price, Recess'd Ends, Blk... ea.	.25	.25	.30	.45	.65	.80	1.00	1.25	2.50
Price, Recees'd Ends, Glv...ea.	.35	.35	.45	.60	.85	1.00	1.25	1.50	3.00

Tees, Plain and Recessed Ends, Screwed, Black and Galvanized.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½
Price, Plain Ends, Black, ..each	.30	.30	.50	.60	.90	1.15	1.40	1.80	3.50
Price, Plain Ends, Galv. ..each	.40	.40	.60	.80	1.15	1.40	1.75	2.15	4.25
Price, Recess'd Ends, Blk. ..ea.	.35	.35	.45	.70	1.00	1.25	1.50	1.90	3.75
Price, Recess'd Ends, Glv...ea.	.45	.45	.65	.90	1.25	1.50	1.85	2.25	4.50

Return Bends, Plain and Recessed Ends, Screwed, Black and Galvanized

Size .....inches	¾	1	1¼	1½	2	2½
Price, Plain Ends, Black .....each	.75	.85	1.00	1.30	1.50	2.75
Price, Plain Ends, Galvanized.....each	1.15	1.25	1.40	2.00	2.30	3.75
Price, Recessed Ends, Black .....each	.80	.90	1.10	1.40	1.60	3.00
Price, Recessed Ends, Galvanized.....each	1.20	1.35	1.50	2.10	2.40	4.00

Couplings, Recessed Ends, Screwed, Black and Galvanized.

Size .....inches	¼	⅜	½	¾	1	1¼	1½	2	2½
Price, Recess'd Ends, Blk. ..ea.	.35	.35	.45	.60	.75	1.00	1.25	1.50	3.00
Price, Recess'd Ends, Glv. ..ea.	.50	.50	.60	.80	1.00	1.25	1.60	2.00	3.50

Flange Unions, Plain and Recessed Ends, Screwed, Black and Galvanized

Size.....	⅜	½	¾	1	1¼	1½	2
Price, Plain Ends, Black.....each	1.00	1.25	1.35	1.50	1.75	2.25	3.00
Price, Plain Ends, Galvanized.....each	.....	1.25	1.50	1.70	1.90	2.20	2.80
Price, Recessed Ends, Black. .....each	1.50	1.65	1.75	1.85	2.50	2.75	3.50
Price, Recessed Ends, Galvanized...each	.....	1.85	2.00	2.20	2.30	3.15	3.50

Jam Nuts and Rubbers.

Size .....inches	¼	⅜	½	¾	1	1¼	1½	2	2½
Price, Jam Nuts.....each	.07	.08	.10	.12	.15	.18	.20	.30	.50
Price, Jam Nut Rubbers....each	.04	.04	.05	.05	.05	.07	.08	.10	.15

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THE WM. PATTISON SUPPLY CO. CLEVELAND

AMMONIA FITTINGS.

Screwed.

RETURN BEND FOR BRINE COILS.

FIG. 329

RETURN BEND, EXTRA HEAVY WROUGHT IRON PIPE.

FIG. 330.

QUARTER BEND, EXTRA HEAVY WROUGHT IRON PIPE.

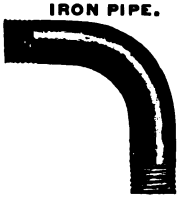

FIG. 331.

Return Bends for Brine Coils.

Size ... inches	1	1	1	1¼	1¼	1½	2	.....	.....
Price, Black.....each	.35	.38	.50	.45	.60	.75	.90	.....	.....
Price, Galvanized...each	.70	.76	1.00	.90	1.20	1.50	1.80	.....	.....
Center to Center..inches	3½	4	6	4	6	7	6	.....	.....

Return Bends of Extra Heavy Wrought Iron Pipe.

Size ..... inches	½	¾	1	1¼	1½	2	2½	3	3½	4
Price, Black.....each	.40	.54	.84	1.24	1.62	2.50	4.86	10.54	15.28	20.54
Price, Galvanized...each	.50	.66	1.02	1.56	2.06	3.32	6.52	12.75	18.74	25.00
Center to Center..inches	4	5	6	8	10	12	16	20	24	28
Height over all...inches	5½	6	7½	10	11	13½	17½	18	20	22

Quarter Bends of Extra Heavy Wrought Iron Pipe.

Size..... inches	½	¾	1	1¼	1½	2	2½	3	3½	4
Price, Black.....each	.34	.44	.64	.88	1.14	1.70	3.20	7. 22	10.54	13.74
Price, Galvanized...each	.42	.54	.76	1.12	1.52	2.26	4.30	8.78	12.64	16.40
Center to End.....inches	5	5½	7	9	10	12	16	16	18	20
Radius..... .inches	2	2½	3	4	5	6	8	10	12	14

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AMMONIA FITTINGS.

Cast Iron Ammonia Valves and Cocks, Recessed Ends, Screwed.

GATE VALVE, RENEWABLE SEAT RINGS

FIG. 332

STRAIGHTWAY SWINGING CHECK VALVE.

FIG. 333.

ASBESTOS PACKED COCK.

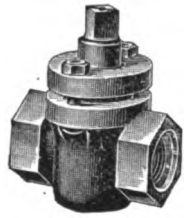

FIG. 334.

Gate Valves, Renewable Seat Rings, Recessed Ends, Screwed.

Size ..... inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price ..... each	3.00	3.00	3.00	3.60	4.20	5.10	6.00	8.50	12.00	14.50

Sizes ¼ to 1¼ inches have screwed hub, 2 to 3 inches bolted bonnet.

Gate Valves, Renewable Seat Rings, Flanged

Size..... inches	2½	3	3½	4
Price..... each	12.00	14.50	20.00	25.00

Straightway Swinging Check Valves, Screwed.

Size ..... inches	½	¾	1	1¼	1½	2	2½	3
Price ..... each	1.95	2.10	2.25	2.75	3.50	4.25	9.50	12.00

Sizes ½ to 1½ have screwed cap, 2 to 3 inches bolted cap.

Asbestos Packed Cocks, Recessed Ends, Screwed.

Size..... inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4
Price..... each	1.40	1.50	1.60	2.10	2.50	3.50	4.75	7.00	12.00	18.00	27.00	30.00

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EXPANSION ASBESTOS PACKED COCK.

FIG. 335.

AUTOMATIC AMMONIA GAUGE. SAFETY ATTACHMENT.

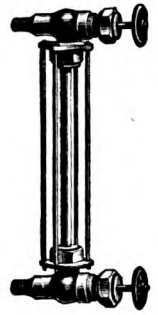

FIG 336.

Expansion Asbestos Packed Cocks, Recessed Ends, Screwed.

Size ..... inches	½	¾	1
Price ..... each	6.25	7.50	10.00

Automatic Ammonia Gauges, Safety Attatchment.

Size ..... inches	½	¾	1
Price, Standard, Complete ..... each	10.00	12.50	15.00
Price, Extra Heavy, Complete ..... each	12.50	15.00	20.00

AMMONIA GAUGE.

FIG 337.

AMMONIA PRESSURE RECORDING GAUGE.

FIG 338

Ammonia Gauges.

Size Dial ..... inches	8½	6¾	6	5½	5	4½	3½
Price, Iron Case and Ring ..... each	45.00	40.00	35.00	30.00	30.00	25.00	25.00
Price, Iron Case, Nickel Plated Ring ..... each	45.75	40.60	35.50	30.50	30.50	25.50	25.50

Ammonia Pressure Recording Gauges.

Price ..... each	100.00

Price includes one year's supply of charts numbered consecutively for each day in the year and ruled to the special scale of the instrument. One album for filing charts, also shelf and brackets.

These Recorders have a chart speed of 1 to 1½ inches per hour. In ordering state whether for high or low pressure.

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STANDARD BRASS GLOBE, ANGLE AND CROSS VALVES.

Screwed and Flanged.

GLOBE VALVE.

FIG. 339. No. 1.

ANGLE VALVE.

FIG. 340. No. 2.

CROSS VALVE.

FIG. 341. No. 18.

Globe and Angle Valves, Nos. 1 and 2.

Size....inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Price.....each	.72	.72	.77	1.00	1.26	1.80	2.52	3.50	5.30	10.00	14.40	26.50	36.00

Cross Valves, No. 18.

Size.....inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Price.....each	1.25	1.25	1.50	2.00	2.50	3.50	5.00	8.00	16.00	24.00

GLOBE VALVE, FLANGED

FIG. 342. No. 3.

Globe and Angle Valves, Flanged, No. 3.

Size .....inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Price .....each	5.00	6.75	8.50	10.50	16.00	23.00	35.00	50.00	70.00
Diameter of Flanges, inches	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	$7\frac{1}{2}$	$8\frac{1}{2}$	9
Face to Face, Globe, inches	$3\frac{1}{8}$	$3\frac{5}{8}$	$4\frac{1}{8}$	$4\frac{5}{8}$	$5\frac{1}{2}$	$6\frac{3}{8}$	$7\frac{7}{16}$	$7\frac{13}{16}$	$8\frac{5}{16}$
Center to Inlet or Outlet, Angle .....inches	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{7}{8}$	$3\frac{3}{16}$	$3\frac{3}{4}$	$4\frac{5}{16}$	$4\frac{5}{8}$	$5\frac{1}{4}$	$5\frac{1}{2}$

Template for drilling, see page 95.

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STANDARD BRASS HORIZONTAL, ANGLE AND VERTICAL CHECK VALVES.

Screwed and Flanged.

HORIZONTAL CHECK VALVE.

FIG. 343.
No. 20.

ANGLE CHECK VALVE.

FIG. 344.
No. 26.

VERTICAL CHECK VALVE.

FIG. 345.
No. 24.

Horizontal Check Valves, No. 20.

Size ....inches	⅛	¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4
Price .....each	.65	.65	.70	.90	1.15	1.60	2.25	3.15	4.75	9.00	13.00	24.00	32.50

Horizontal Check Valves, Flanged, No. 21.

Size..... inches	¾	1	1¼	1½	2	2½	3	3½	4
Price.....each	4.90	6.50	8.25	10.15	15.50	22.00	33.50	47.50	66.50
Diameter of Flanges, inches	3½	4	4½	5	6	7	7½	8½	9
Face to Face of Flanges ..in.	3⅛	3⅝	4⅛	4⅝	5½	6⅜	$7\frac{7}{16}$	$7\frac{13}{16}$	$8\frac{5}{16}$

Angle and Vertical Check Valves, Nos. 26 and 24.

Size ....inches	⅛	¼	⅜	½	¾	1	1¼	1½	2
Price .....each	.72	.72	.77	1.00	1.26	1.80	2.52	3.50	5.30

HORIZONTAL CHECK VALVE WITH DRIP COCK.

FIG. 346.
No. 28.

Horizontal Check Valve with Drip Cock.

Size ....inches	½	¾	1	1¼	1½
Price, with Drip Cock ....each	2.15	2.55	3.15	4.05	5.40
Price, without Drip Cock .....each	1.85	2.20	2.70	3.60	4.90

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COPPER DISC BRASS GLOBE AND ANGLE VALVES.

Screwed and Flanged.

GLOBE VALVE, COPPER DISC.

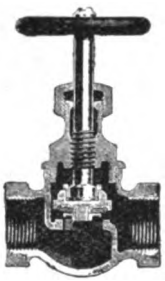

FIG 347.

No. 10.

ANGLE VALVE, NEEDLE POINT.

FIG. 348.

No. 60.

Copper Disc Globe and Angle Valves, Screwed, No. 10.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	1.10	1.25	1.60	2.20	2.80	4.00	5.50	8.75	15.75	22.00

Copper Disc Globe and Angle Valves, Flanged, No. 11.

Size.....inches	¾	1	1¼	1½	2	2½	3
Price.....each	5.00	6.00	9.00	11.00	16.50	25.00	34.00
Diameter of Flanges.....inches	3½	4	4½	5	6	7	7½
Face to Face, Globe.....inches	3¼	3 1/16	4 3/16	5	5¾	6 ½	7 9/16
Center to Inlet or Outlet, Angle, inches	2¼	2½	2 7/8	3 3/16	3¾	4 5/16	4 5/8

Template for drilling see page 95.

Extra Copper or Composition Discs.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	.06	.08	.08	.10	.12	.18	.24	.36	.48	.66

Size.....inches	3½	4	5	6	7	8	10	12	.....	.....
Price.....each	.90	1.04	1.36	1.80	1.96	2 40	3.50	4.50	.....	.....

Needle Point Globe and Angle Valves, No. 60.

Size.....inches	¼	⅜	½
Price, Globe or Angle.....each	1.40	1.50	2.00
Price, Angle With Union.....each	2.00	2.20	3.00

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PRATT & CADY'S BRASS, ASBESTOS DISC, GLOBE, ANGLE AND CROSS VALVES.

Screwed and Flanged.

GLOBE VALVE.

FIG. 349.

ANGLE VALVE.

FIG. 350.

CROSS VALVE.

FIG. 351.

Globe and Angle Valves.

Size... inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Price ....each	1.10	1.10	1.25	1.60	2.20	2.80	4.00	5.50	8.75	15.75	22.00

Globe and Angle Valves, Flanged.

Size..... inches	1	1 1/4	1 1/2	2	2 1/2	3
Price.....each	6.00	9.00	11.00	16.50	25.00	34.00
Diameter of Flanges.....inches	4	4 1/2	5	6	7	7 1/2
Face to Face, Globe.....inches	4 7/8	5 1/2	6	7 1/8	8	9
Center to Inlet or Outlet.....inches	2 7/16	2 3/4	3	3 9/16	4	4 1/2

Cross Valves.

Size .....inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Price..... .....each	2.25	2.50	3.25	4.75	6.25	9.50	20.00	30.00

Cross Valves, Flanged.

Size..... inches	1	1 1/4	1 1/2	2	2 1/2	3
Price.....each	8.75	11.50	15.25	23.00	32.00	47.00
Diameter of Flanges..... .....inches	4	4 1/2	5	6	7	7 1/2
Face to Face.....inches	4 7/8	5 1/2	6	7 1/8	8	9
Center to Inlet.....inches	2 7/16	2 3/4	3	3 9/16	4	4 1/2

Extra Discs for Pratt & Cady's Brass Globe Angle Valves.

Size .....inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Price.....each	.13	.14	.07	.09	.10	.12	.18	.25	.36	.48	.60	1.50	2.00

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BRASS HORIZONTAL, ANGLE AND VERTICAL CHECK VALVES.

Screwed and Flanged.

HORIZONTAL CHECK VALVE, CUP PATTERN.

FIG. 352.

No. 32.

HORIZONTAL SWING CHECK VALVE.

FIG. 353.

No. 34.

Horizontal Check Valves, Cup Pattern, No. 32.

Size.....inches	¾	1	1¼	1½	2
Price.....each	2.50	3.50	5.00	7.00	11.00

Horizontal Swing Check Valves, No. 34.

Size.....inches	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	2.15	2.25	2.75	3.50	4.25	5.50	7.50	15.00	22.00

PRATT & CADY'S HORIZONTAL SWING CHECK VALVE.

FIG. 354.

PRATT & CADY'S HORIZONTAL SWING CHECK VALVE, FLANGED.

FIG. 355.

Pratt & Cady's Brass Horizontal, Angle and Vertical Swing Check Valves.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	1.25	1.30	1.50	1.75	2.25	3.25	4.25	6.25	12.00	20.00

Angle Valves are made from ½ to 3 inches.

Pratt & Cady's Brass Horizontal and Vertical Swing Check Valves, Flanged.

Size.....inches	1	1¼	1½	2	2½	3
Price.....each	6.25	7.85	10.25	15.50	25.00	32.50
Diameter of Flanges.....inches	4	4½	5	6	7	7½
Face to Face of Flanges..inches	5	5⅝	6½	6⅝	8¼	7¼

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COMPOSITION DISC, BRASS GLOBE, ANGLE AND CHECK VALVES.

Screwed and Flanged.

GLOBE VALVE, COMPOSITION DISC.

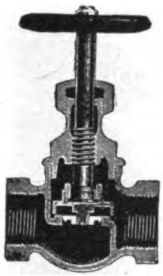
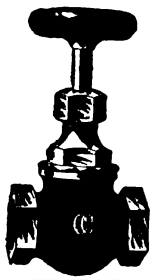


FIG. 356.
No. 12.

GLOBE VALVE, COMPOSITION DISC, WOOD WHEEL.



IG. 357.
No. 14.

HORIZONTAL CHECK VALVE, COMPOSITION DISC.

FIG. 358.

Globe and Angle Valves, No. 12.

Size.....inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Price.....each	1.10	1.25	1.60	2.20	2.80	4.00	5.50	8.75	15.75	22.00

Globe and Angle Valves, Flanged, No. 13.

Size.....inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Price.....each	5.00	6.00	9.00	11.00	16.50	25.00	34.00
Diameter of Flanges.....inches	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	$7\frac{1}{2}$
Face to Face, Globe.....inches	$3\frac{1}{4}$	$3\frac{1}{16}$	$4\frac{3}{16}$	5	$5\frac{3}{4}$	$6\frac{1}{2}$	$7\frac{9}{16}$
Genter to Inlet or Outlet, Angle, inches	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{7}{8}$	$3\frac{3}{16}$	$3\frac{3}{4}$	$4\frac{5}{16}$	$4\frac{5}{8}$

Template for drilling see page 95.

Globe and Angle Valves, Wood Wheel, No. 14.

Size.....inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Price, Rough Body.....each	2.00	2.50	3.20	4.50	6.25	10.50
Price, Rough Body, Nickel Plated.....each	2.40	2.90	3.60	4.90	6.65	10.90
Price, Finished ... ...each	2.50	3.00	3.75	5.25	7.25	11.75
Price, Finished and Nickel Plated.....each	2.90	3.40	4.15	5.65	7.65	12.15

Globe and Angle Valves, Brass Wheel, No. 16.

Size.....inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Price, Finished.....each	3.50	4.00	4.75	6.50	8.50	13.00
Price, Finished and Nickel Plated, each	4.15	4.65	5.40	7.15	9.15	13.65

Horizontal Check Valves, Screwed and Flanged.
Screwed No. 22.

Size.....inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Price.....each	1.30	1.90	2.60	3.60	5.00	7.50	13.50	20.50

Flanged No. 23.

Size.....inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Price.....each	4.75	5.50	7.80	9.80	15.00	22.80	32.40
Diameter of Flanges.....inches	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	$7\frac{1}{2}$
Face to Face, Flanges.....inches	$3\frac{1}{4}$	$3\frac{1}{16}$	$4\frac{3}{16}$	5	$5\frac{3}{4}$	$6\frac{1}{2}$	$7\frac{9}{16}$

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JENKINS BROS.' BRASS GLOBE, ANGLE, CROSS AND CHECK VALVES.

Screwed and Flanged.

GLOBE VALVE.

FIG. 359.

ANGLE VALVE.

FIG. 360.

HORIZONTAL CHECK VALVE.

FIG. 361.

Globe and Angle Valves.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	1.10	1.25	1.60	2.20	2.80	4.00	5.50	8.75	15.75	22.00

Globe and Angle Valves, Flanged.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	3.50	4.00	4.00	5.00	6.00	9.00	11.00	16.50	25.00	34.00
Diameter of Flanges, inches	.....	.....	3	3½	4	4½	5	6	7	7½
Face to Face, Globe, inches	.....	.....	3 1/16	3 9/16	4	4 3/8	4 7/8	5 1/16	6 1/8	7½
Center to Inlet or Outlet, Angle, in.	.....	.....	2 1/16	2 3/8	2 5/8	2 15/16	3 3/16	3¼	4¼	4 9/16

Cross Valves.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	1.70	2.00	2.25	2.50	3.25	4.75	6.25	9.50	20.00	27.50

Horizontal, Angle and Vertical Check Valves.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	1.10	1.20	1.30	1.90	2.60	3.60	5.00	7.50	13.50	20.50

Horizontal, Angle and Vertical Check Valves, Flanged.

Size .....inches	¾	1	1¼	1½	2	2½	3
Price.....each	4.75	5.50	7.80	9.80	15.00	22.80	32.40
Diameter of Flanges.....inches	3½	4	4½	5	6	7	7½
Face to Face, Horizontal or Vertical...inches	3 9/16	4	4 3/8	4 7/8	5 1/16	6 1/16	7½
Center to Inlet or Outlet, Angle...in.	2 3/8	2 5/8	2 15/16	3 3/16	3¾	4¼	4 9/16

Extra Discs for Jenkins Bros.' Valves.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	.03	.04	.04	.05	.06	.09	.12	.18	.24	.33

Size.....inches	3½	4	4½	5	6	7	8	9	10	12
Price.....each	.45	.52	.60	.68	.90	.98	1.20	1.60	1.75	2.25

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

BRASS REGRINDING NAVY GLOBE, ANGLE, CROSS AND CHECK VALVES.

Screwed and Flanged.
For 175 Pound Working Pressure.

GLOBE VALVE.

FIG. 362.
No. 70.

CROSS VALVE.

FIG. 363.
No. 74.

HORIZONTAL CHECK VALVE.

FIG. 364.
No. 72.

Globe and Angle Valves, No. 70.

Size .....inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Price.....each	1.30	1.50	1.90	2.50	3.50	5.00	7.00	11.00	20.00	29.00

Globe and Angle Valves, Flanged, No. 71.

Size.....inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Price.....each	6.00	8.00	11.00	14.00	20.00	33.00	48.00
Diameter of Flanges.....inches	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	$7\frac{1}{2}$
Face to Face, Globe.....inches	$3\frac{1}{16}$	$4\frac{3}{16}$	$4\frac{9}{16}$	$5\frac{5}{16}$	6	$6\frac{3}{4}$	$7\frac{15}{16}$
Center to Inlet or Outlet, Angle ..inches	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{7}{8}$	$3\frac{3}{16}$	$3\frac{3}{4}$	$4\frac{5}{16}$	$4\frac{9}{8}$

Cross Valves, No. 74.

Size..... .....inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Price.....each	2.65	3.50	4.75	6.00	9.00	14.00	28.00	42.00

Cross Valves, Flanged, No. 75.

Size .....inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Price..... each	9.25	12.25	17.00	23.00	33.00	48.00	72.00
Diameter of Flanges.....inches	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	$7\frac{1}{2}$
Face to Face .....inches	$4\frac{1}{2}$	5	$5\frac{7}{8}$	$6\frac{3}{8}$	$7\frac{1}{2}$	$8\frac{5}{8}$	$9\frac{1}{4}$

Horizontal and Angle Check Valves, No. 72.

Size .....inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Price. ..... each	1.15	1.35	1.70	2.25	3.15	4.50	6.30	9.90	18.00	26.00

Navy, Brass Horizontal and Angle Check Valves, Regrinding, Flanged, No. 73.

Size.....inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Price .....each	5.00	7.00	10.00	13.00	18.00	30.00	43.00
Diameter of Flanges..... inches	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	$7\frac{1}{2}$
Face to Face, Horizontal.....inches	$3\frac{1}{16}$	$4\frac{3}{16}$	$4\frac{9}{16}$	$5\frac{5}{16}$	6	$6\frac{3}{4}$	$7\frac{15}{16}$
Center to Inlet or Outlet, Angle ..inches	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{7}{8}$	$3\frac{3}{16}$	$3\frac{3}{4}$	$4\frac{5}{16}$	$4\frac{9}{8}$

Template for Drilling, see page 95.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

LUNKENHEIMER'S BRASS REGRINDING GLOBE ANGLE AND CROSS VALVES.

Screwed and Flanged.
For 175 Pounds Working Pressure.

GLOBE VALVE.

FIG. 365.

ANGLE VALVE.

FIG. 366.

CROSS VALVE.

FIG. 367.

Globe and Angle Valves.

Size.....inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Price.....each	.70	.70	.85	1.15	1.45	2.00	2.80	3.90	6.20	12.00	16.50

Globe and Angle Valves, Flanged.

Size..... inches	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Price .....each	2.20	3.40	4.70	5.80	8.10	10.70	14.40	20.70	29.00
Diameter of Flanges.inches	2 1/2	3	3 1/2	4	4 1/2	5	6	7	7 1/2
Face to Face, Globe..inches	3 1/8	3 15/16	4 3/8	4 15/16	5 9/16	6 1/16	7 1/4	8 1/4	8 3/4
Center to Inlet or Outlet, Angle..inches	1 9/16	1 31/32	2 3/16	2 15/32	2 25/32	3 1/32	3 5/8	4 1/8	4 3/8

Cross Valves.

Size.....inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Price .....each	1.00	1.00	1.00	1.50	2.00	2.70	3.50	5.10	8.00	16.00	24.00

Cross Valves, Flanged.

Size..... inches	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Price..... each	3.20	5.10	7.00	8.40	11.90	15.20	20.30	28.60	39.50
Diameter of Flanges.inches	2 1/2	3	3 1/2	4	4 1/2	5	6	7	7 1/2
Center to Face.....inches	1 9/16	1 31/32	2 3/16	2 15/32	2 25/32	3 1/32	3 5/8	4 1/8	4 3/8

Special Globe and Angle Valves, Screw and Flanged End.

Size.....inches	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Price..... each	1.40	2.10	3.00	3.70	5.30	7.10	10.10	14.90	21.10
Diameter of Flanges,inches	2 1/2	3	3 1/2	4	4 1/2	5	6	7	7 1/2
End to Face, Globe..inches	2 17/32	2 7/8	3 1/2	4 3/32	4 19/32	5 1/16	6 1/16	7 5/32	7 13/16
Center to Screwed Outlet, Angle...inches	1 31/32	1 29/64	1 5/8	1 7/8	2 1/32	2 1/32	2 7/16	3 1/32	3 7/16
Center to Flanged Inlet, Angle ...inches	1 9/16	1 31/32	2 3/16	2 15/32	2 25/32	3 1/32	3 5/8	4 1/8	4 3/8

Prices given above are for valves with regular flanges on one end and female thread on the other

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

LUNKENHEIMER'S BRASS REGRINDING HORIZONTAL, ANGLE AND VERTICAL CHECK VALVES.

Screwed and Flanged.

For 175 Pounds Working Pressure.

HORIZONTAL CHECK VALVE.

FIG. 368.

ANGLE CHECK VALVE.

FIG. 369.

VERTICAL CHECK VALVE.

FIG. 370.

Horizontal, Angle and Vertical Check Valves.

Size.....inches	⅛	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price..... each	.50	.50	.60	.85	1.15	1.55	2.30	3.25	5.20	10.00	14.00

Check Valves with Enlarged Seat and Drip Cock.

Size ..... inches	⅜	½	¾	1	1¼	1½	2	2½	3
Price, Horizontal, Enlarged Seat.....each	.....	1.15	1.55	2.30	3.25	5.20	10.00	.....	.....
Price, Enlarged Seat and Drain Cock .each	.....	1.60	2.00	2.75	3.70	5.65	10.50	.....	.....
Price, with Drain Cock..... each	1.05	1.30	1.60	2.00	2.75	3.70	5.65	10.50	14.50

Horizontal, Angle and Vertical Check Valves, Flanged.

Size..... inches	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	1.90	3.00	4.30	5.20	7.30	9.70	13.30	18.20	25.80
Diameter of Flanges..inches	2½	3	3½	4	4½	5	6	7	7½
Face to Face, Horizontal.....inches	3¼	3 5/16	4⅜	4 5/16	5 9/16	6 1/16	7¼	8¼	8¾
Face to Face, Vertical .....inches	2 3/16	2½	2¾	3 3/16	3½	3⅞	4⅝	5⅛	5⅝
Ceter to Inlet or Outlet, Angle.....inches	1 9/16	1 31/32	2 3/16	2 5/32	2 5/32	3 1/32	3⅜	4⅛	4⅜

Special Horizontal and Angle Check Valves, Screw and Flanged End.

Size .....inches	⅜	½	¾	1	1¼	1½	2	2½	3
Price..... .....each	1.70	2.50	3.40	4.30	6.00	8.00	11.10	17.20	24.00
Diameter of Flanges. inches	2½	3	3½	4	4½	5	6	7	7½
End to Face.....inches	2 7/32	2 7/64	3½	4 3/32	4 9/16	5 1/16	6 1/16	7 5/32	7 13/16
Center to Screwed Outlet, Angle.....inches	1 31/32	1 9/64	1 5/16	1⅜	1 25/32	2 1/32	2 7/16	3 1/32	3 7/16
Center to Flanged Inlet, Angle.....inches	1 9/16	1 31/32	2 3/16	2 5/32	2 5/32	3 1/32	3⅜	4⅛	4⅜

Prices given above are for Valves with regular flange, on one end and female thread on the other.

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LUNKENHEIMER'S BRASS REGRINDING SWING AND BALL CHECK VALVES.

Screwed and Flanged.

For 175 Pounds Working Pressure.

HORIZONTAL CHECK VALVE.

FIG. 371.

HORIZONTAL CHECK VALVE SCREW AND FLANGE.

FIG. 372.

HORIZONTAL BALL CHECK VALVE

FIG. 373.

Horizontal Check Valves.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	1.25	1.25	1.30	1.75	2.25	3.25	4.25	6.25	11.50	16.00

Horizontal Check Valves, Flanged.

Size.....inches	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	2.60	2.90	3.60	4.90	7.20	9.20	12.30	18.50	26.80
Diam. of Flanges...inches	2½	3	3½	4	4½	5	6	7	7½
Face to Face.....inches	3⅛	3 9/32	4 3/32	4 25/32	5¼	5 29/32	7 1/16	7 29/32	8¾

Special Horizontal Check Valves, Screw and Flanged End.

Size.....inches	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	2.00	2.20	2.80	3.80	5.50	7.00	9.70	15.50	22.20
Diam. of Flanges...inches	2½	3	3½	4	4½	5	6	7	7½
End to Face.....inches	2 21/32	2 61/64	3 15/32	3 13/16	4½	5 5/64	6 3/32	6 15/16	7 23/32

Horizontal Ball Check Valves.

Size.....inches	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	1.10	1 60	2.30	3.10	4.00	6.20	9.40	18.00	25.00
Price, with Drip Cock.....each	1 50	2.00	2.70	3.50	4.40	6.60	9.80	18.50	25.50

Brass Balls, for Check Valves.

Size.....inches	½	¾	1	1¼	1½	2	2½	2¾	3	3½	3¾
Price.....each	.60	.65	.75	1.00	1.50	2.75	4.50	5.25	6.00	7.00	8.00

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BRASS HOSE VALVES.

STANDARD PATTERN.

FIG. 374.

No. 50

GARDEN HOSE VALVES.

FIG. 375.

No. 56.

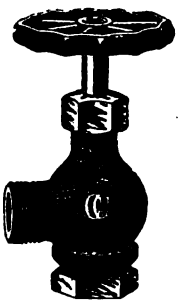

FIG. 376.

No. 58.

Standard; Iron Handle, Loose Swivel and Leather Disc, No. 50.

Size.....inches	1	1¼	1½	2	2½
Price, Rough Body.....each	3.15	3.70	4.75	7.00	8.50
Price, Rough Body, Nickel Plated.....each	3.65	4.30	5.50	8.00	9.75

Standard; Finished Brass Wheel, Loose Swivel and Leather Disc, No. 52.

Size.....inches	2	2½
Price, Finished.....each	11.50	14.50
Price, Finished and Nickel Plated.....each	12.75	16.00

Standard; Finished Brass Wheel, Fibre Disc, No. 54.

Size.....inches	2	2½
Price, Finished.....each	13.25	16.50
Price, Finished and Nickel Plated.....each	14.50	18.00

Garden Hose Valves, Leather Disc, Nos. 56 and 58.

Size.....inches	½	¾	1	1¼	1½	2	2½
Price.....each	1.65	1.65	2.20	3.40	4.75	7.00	12.00

These Valves will be furnished with any standard thread required.

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BRASS THROTTLE AND BUTTERFLY VALVES.

THE W. M. PATTISON SUPPLY CO. CLEVELAND O.

THROTTLE VALVE.

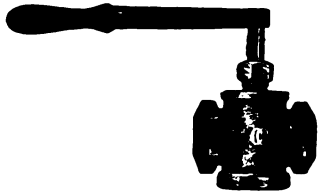

FIG. 377.

No. 46.

Throttle Valves, No. 46.

Size..... inches	¾	1	1¼	1½	2	2½
Price.....each	10.00	11.50	14.00	20.00	25.00	35.00

Lunkenheimer's Lever Throttle Valves.

For 175 Pounds Working Pressure.

FIG. 378.

Size .....inches	¾	1	1¼	1½	2	2½
Price .....each	3.00	4.00	5.00	7.00	10.00	19.00

BUTTERFLY VALVE.

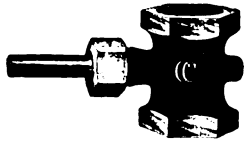

FIG. 379.

No. 44.

Butterfly Valves, No. 44.

Size .....inches	¾	1	1¼	1½	2	2½	3
Price .....each	3.10	4.40	5.65	6.75	10.00	13.75	21.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

RADIATOR VALVES.

With Wood Wheel, Union and Composition Disc.

STANDARD RADIATOR VALVE.

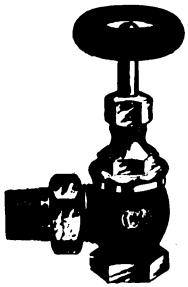

FIG. 380.

CORNER RADIATOR VALVES.

RIGHT HAND.

FIG. 381.

LEFT HAND

FIG. 382.

Standard Radiator Valves.

Size.....inches	¾	1	1¼	1½	2
Price, No. 120, Rough Body.....each	3.50	4.30	5.85	7.75	12.60
Price, No. 124, Rough Body, Nickel Plated....each	3.80	4.75	6.40	8.10	13.10
Price, No. 126, Finished.....each	4.00	4.80	6.40	8.75	13.85
Price, No. 128, Finished and Nickel Plated....each	4.25	5.25	7.00	9.25	14.35

Corner Radiator Valves.

Size.....inches	¾	1	1¼	1½	2
Price, No. 140, Rough Body.....each	3.85	4.75	6.45	8.55	13.85
Price, No. 144, Rough Body, Nickel Plated....each	4.20	5.25	7.05	8.95	14.45
Price, No. 146, Finished.....each	4.50	5.50	7.20	9.55	15.35
Price, No. 148, Finished and Nickel Plated....each	4.85	6.00	7.80	9.95	15.95

In ordering Corner Radiator Valves, always state whether Right Hand or Left Hand Valves are wanted.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

RADIATOR VALVES.

With Wood Wheel, Union and Composition Disc.

OPPOSITE ANGLE RADIATOR VALVE

FIG. 383.

LOCK SHIELD RADIATOR VALVE.

FIG. 384.

GATE VALVE. WITH WOOD WHEEL AND UNION

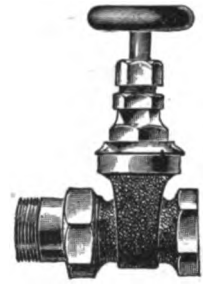

FIG. 385.

Opposite Angle Radiator Valves.

Size.....inches	¾	1	1¼	1½	2
Price, No. 160, Rough Body .....each	3.85	4.75	6.45	8.55	13.85
Price, No. 164, Rough Body, Nickel Plated...each	4.20	5.25	7.05	8.95	14.45
Price, No. 166, Finished.....each	4.50	5.50	7.20	9.55	15.35
Price, No. 168, Finished and Nickel Plated...each	4.85	6.00	7.80	9.95	15.95

Lock Shield Radiator Valves.

Same List as Figs. 380 to 383.

Gate Valves, with Wood Wheel and Union.

Size.....inches	½	¾	1	1¼	1½	2
Price, Rough Body.....each	3.20	3.75	4.80	6.40	8.00	11.50
Price, Rough Body, Nickel Plated.....each	3.40	4.05	5.30	6.75	8.25	11.90
Price, Finished.....each	4.75	5.30	6.40	8.00	9.45	15.15
Price, Finished and Nickel Plated.....each	5.05	5.65	6.95	8.40	10.50	15.85

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

JENKINS BROS.' BRASS RADIATOR VALVES.

With Union.

STANDARD RADIATOR VALVE.

FIG. 386.

CORNER RADIATOR VALVES.

RIGHT HAND.

FIG. 387

LEFT HAND.

FIG. 388.

Standard Radiator Valves.

Size..... inches	½	¾	1	1¼	1½	2
Price, Rough Body ..... each	2.75	3.50	4.30	5.85	7.75	12.60
Price, Rough Body, Nickel Plated..... each	3.15	3.90	4.70	6.25	8.15	13.00
Price, Finished..... each	3.20	4.00	4.80	6.40	8.75	13.85
Price, Finished and Nickel Plated..... each	3.60	4.40	5.20	6.80	9.15	14.25

Regular and Offset Pattern Corner Radiator Valves.

Size..... inches	½	¾	1	1¼	1½	2
Price, Rough Body ..... each	3.05	3.85	4.75	6.45	8.55	13.85
Price, Rough Body, Nickel Plated..... each	3.45	4.25	5.15	6.95	8.95	14.25
Price, Finished..... each	3.50	4.40	5.30	7.05	9.65	15.25
Price, Finished and Nickel Plated..... each	3.90	4.80	5.70	7.45	10.05	15.65

Corner Radiator Valves are made with the union on Right or Left side of Valve.

☞ Lock Shield Valves same lists as above.

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HOT WATER RADIATOR VALVES,

And Union Elbows.

HOT WATER RADIATOR VALVE.

FIG. 389.

MacKAY HOT WATER RADIATOR VALVE.

FIG. 390.

UNION ELBOW.

FIG. 391.

Hot Water Radiator Valves.

Size.....inches	¾	1	1¼	1½	2
Price, No. 170, Rough Body.....each	2.45	3.25	4.50	6.50	10.00
Price, No. 174, Rough Body, Nickel Plated, ea.	2.85	3.65	5.05	7.10	10.85
Price, No. 176, Finished .....each	3.00	3.85	5.25	7.50	11.50
Price, No. 178, Finished and Nickel Plated...each	3.40	4.30	5.80	8.10	12.35

MacKay Hot Water Radiator Valves.

Size ..... inches	1	1¼	1½
Price, Rough Body, Nickel Plated, each	3.65	5.05	7.10
Price, Finished and Nickel Plated, each	4.30	5.80	8.10

Union Elbows.

Size..... inches	¾	1	1¼	1½	2
Price, No. 190, Rough Body.....each	1.75	2.25	2.95	3.70	6.00
Price, No. 192, Rough Body, Nickel Plated...each	2.00	2.50	3.20	4.00	7.00
Price, No. 194, Finished and Nickel Plated.....each	2.20	2.75	3.60	4.60	7.50
Price, No. 196, Finished and Nickel Plated.....each	2.40	3.00	3.90	4.85	8.50

Keys for Lock Shield Radiator Valves

FIG. 392
No. 200.

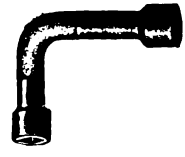

FIG. 393.
No. 198.

	Rough.	Nickel Plated.
Price, No. 200, for ⅜ to ½ inch Valves.....each	.18	.25
Price, No. 198, for ¾ to 2 inch Valves.....each	.50	.70

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COMPRESSION STEAM AND WATER RADIATOR AIR VALVES.

Nickel Plated.

SELF CLOSING.

FOR STEAM OR WATER. WILL CLOSE AGAINST 70 POUNDS PRESSURE.

FIG. 394.

Price	each	1.40

Compression.

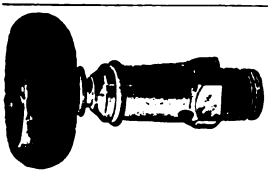

FIG. 395.
No. 2.

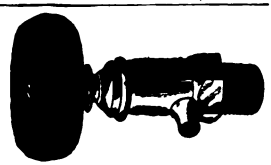

FIG. 396.
No. 3.

Number		2	3
Price	each	.45	.70

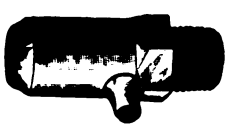

FIG. 397.
No. 4.

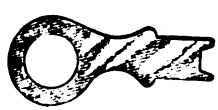

FIG. 398.

FIG. 399.
No. 5.

Number		4	5
Price	each	.07	.35
Price, Keys Extra	each	.05	.05

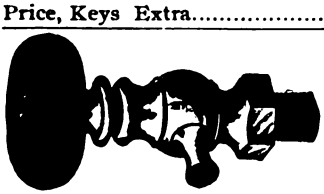

FIG. 400.
No. 6.

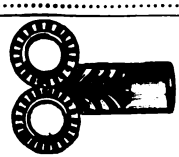

FIG. 401.

FIG. 402.
No. 7.

Number		6	7
Price	each	.70	.70
		.....	.05

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AUTOMATIC STEAM RADIATOR AIR VALVES.

Nickel Plated.

Russell's.

KELLAR.

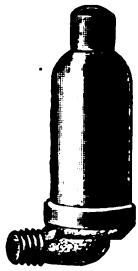

FIG. 403.
No. 0.

EUREKA.

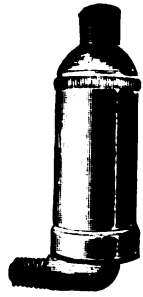

FIG. 404.
No. 1.

PERFECT.

FIG. 405.
No. 1.

PERFECT LOCK SHIELD.

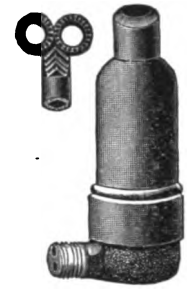

FIG. 406.
No. 5.

Price, Kellar and Eureka, Nos. 0 and 1	each	1.00
Price, Perfect, No. 1	each	1.15
Price, Perfect, Lock Shield, No 5	each	1.35
Price, Heat Controllers	each	.20

MIDGET.

FIG 407.

Price, Midget	per dozen	5.00

Jenkins Bros.'

PLAIN.

FIG. 408.

DRIP CUP.

FIG. 409.

AUXILLIARY VALVE AND DRIP CUP.

FIG. 410.

Price	per dozen	7.50
Price, with ⅛ inch Union Drip Connection	per dozen	9.50
Price, with ¼ inch Union Drip Connection	per dozen	10.00
Price, Drip Cups	per dozen	2.00
Price, Auxiliary Valve	per dozen	2.50

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AUTOMATIC STEAM RADIATOR AIR VALVES.

Nickel Plated.

MO. YO. CO.

FIG. 411.
No. 1.

STAR.

FIG. 412.
No. 8.

PERFECTED DUPLEX.

FIG. 413.
No. 1.

Number	Mo. Yo. Co.	8	1
Price ..... each	1.00	1.00	1.15
Price, with Heat Controller..... each	.....	.....	1.40

M. Y. C.
FOR PAUL SYSTEM.

FIG. 414.

PERFECTED DUPLEX

FIG. 415.
No. 6.

VACUUM.

FIG. 416.
No. 7.

Number	M. Y. C.	6	7
Price ..... each	1.25	1.35	2.00

MIDGET.

FIG. 417.
No. 3.

MONASH.

FIG. 418.
No. 1.

Price, Midget	per dozen	7.50
Price, Monash No. 1	per dozen	7.50
Price, Monash No. 2, with Union Drip connection	per dozen	8.35
Price, Monash No. 3, with Union Drip connection	per dozen	10.00

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AUTOMATIC STEAM RADIATOR AIR VALVES.

Nickel Plated.

Marsh's.

ACME SPECIAL

FIG. 419.

No. 3.

ACME.

FIG. 420.

No. 6.

ACME.

FIG. 421.

No. 1W.

Number	3	6	1W
Price ..... each	1.15	1.25	.....
Price, with Heat Controller ..... each	.....	1.40	1.25
Price, with Drain Pipe Connection..... each	.....	.....	1.50

☞No. 1W is specially designed for use on HOT WATER RADIATORS.

ILLINOIS.

FIG. 422

ACME LOCK SHIELD.

FIG. 423.

No. 6 L. S.

PAUL.

FIG. 424.

Number	Illinois	6 L. S.	Paul	Paul, No. 2	Paul, No. 3
Price ..... each	1.25	1.35	1.25	2.00	2.00

Paul Valve No. 2 is for use on both high and low pressure, No. 3 has union at both ends.

Victor.

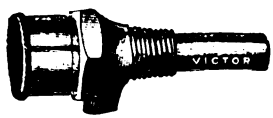

FIG. 425

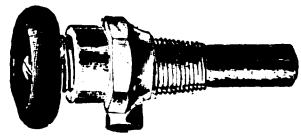

FIG. 426.

Price. ..... per dozen	7.50
Price, with Drip Connection..... per dozen	9.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STANDARD IRON BODY GLOBE, ANGLE AND CROSS VALVES.

Brass Mounted, without Yoke
Screwed and Flanged.

GLOBE VALVE

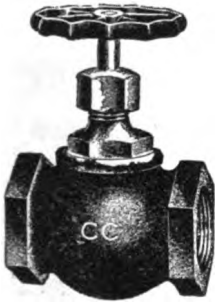

FIG. 427.
No. 354.

ANGLE VALVE

FIG. 428.
No. 356.

CROSS VALVE

FIG 429.
No. 364.

Globe and Angle Valves, Nos. 354 and 356.

Size..... inches	2	2½	3
Price..... each	5.40	7.35	9.80
End to End, Globe..... inches	5¾	6½	7½
Center to Inlet or Outlet, Angle..... inches	2⅞	3¼	3¾

Globe and Angle Valves, Flanged, Nos. 355 and 357.

Size..... inches	2	2½	3
Price..... each	7.00	9.00	12.50
Diameter of Flanges..... inches	6	7	7½
Face to Face, Globe..... inches	8	8½	9½
Center to Inlet or Oulet, Angle..... inches	4	4½	4¾

Cross Valves, No. 364.

Size..... inches	2	2½	3
Price..... each	6.50	9.00	12.50
End to End..... inches	5¾	6½	7½

Cross Valves, Flanged, No. 365.

Size..... inches	2	2½	3
Price..... each	9.00	11.75	16.50
Diameter of Flanges..... inches	6	7	7½
Face to Face..... inches	8	8½	9½

Template for Drilling, see page 95.

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STANDARD IRON BODY GLOBE, ANGLE AND CROSS VALVES.

Brass Mounted, with Yoke.

Screwed.

GLOBE VALVE.

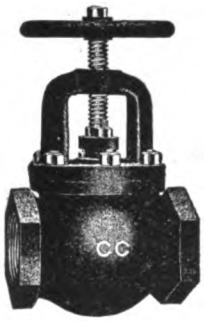

FIG. 430.

No. 350.

ANGLE VALVE.

FIG. 431.

No. 352

CROSS VALVE.

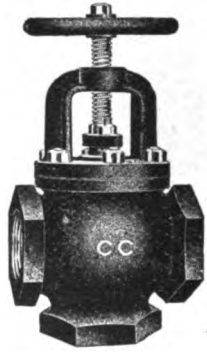

FIG. 432.

No. 362.

Globe and Angle Valves, Nos. 350 and 352.

Size.....inches	2	2½	3	3½	4	4½	5	6	7	8	10	12
Price.....each	7.00	9.00	12.50	15.25	19.00	24.00	27.00	37.50	63.00	72.00	114.00	170.00
End to End, Globe....inches	5¾	6⅝	7½	8¼	9⅜	10¼	11¼	12½	14	16	18¾	22
Center to Inlet or Outlet, Angle.inches	2⅞	3 5/16	3¾	4⅛	4 1/16	5⅛	5⅝	6¼	7	8	9⅜	11

Cross Valves, No. 362.

Size .....inches	3½	4	4½	5	6	7	8	10	12
Price .....each	20.00	23.50	30.65	35.25	47.25	78.00	92.00	162.00	240.00
End to End.....inches	8¼	9⅜	10¼	11¼	12½	14	16	18¾	22

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STANDARD IRON BODY GLOBE, ANGLE AND CROSS VALVES.

Brass Mounted, with Yoke.

Flanged

GLOBE VALVE

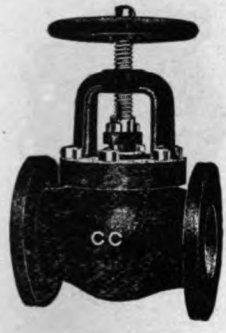

FIG. 433.

No. 351.

ANGLE VALVE

FIG. 434.

No. 353.

Globe and Angle Valves, Nos. 351 and 353.

Size.....inches	2	2½	3	3½	4	4½	5	6
Price .....each	8.60	10.75	15.00	18.50	22.50	27.50	31.00	42.00
Diameter of Flanges..... inches	6	7	7½	8½	9	9½	10	11
Face to Face, Globe..... inches	8	8½	9½	10½	11	12	13	14
Center to Inlet or Outlet, Angle, inches	4	4¼	4¾	5¼	5½	6	6½	7

Size.....inches	7	8	10	12	14	15	16	.....
Price ..... each	68.00	77.00	123.00	187.00	350.00	350.00	475.00	.....
Diameter of Flanges.. ..... inches	12½	13½	16	19	21	22½	23½	.....
Face to Face, Globe..... inches	16	17	20	24	28	28	32	.....
Center to Inlet or Outlet, Angle, inches	8	8½	10	12	14	14	16	.....

The 14, 15 and 16 inch Valves are made to order only.

Cross Valves, No. 363.

Size.....inches	3½	4	4½	5	6	7	8	10	12
Price .....each	25.00	28.50	36.00	41.00	54.00	85.00	100.00	175.00	265.00
Diameter of Flanges ..... inches	8½	9	9½	10	11	12½	13½	16	19
Face to Face .....inches	10½	11	12	13	14	16	17	20	24

Template for drilling, see page 95.

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STANDARD IRON BODY HORIZONTAL, ANGLE AND VERTICAL CHECK VALVES.

Brass Mounted.

Screwed.

HORIZONTAL CHECK VALVE.

FIG. 435.

No. 366.

ANGLE CHECK VALVE.

FIG. 436.

No. 370.

VERTICAL CHECK VALVE.

FIG. 437.

No. 368.

Horizontal and Angle Check Valves, No. 366 and 370.

Size..... inches	2	2½	3	3½	4	4½
Price..... each	3.60	6.50	8.90	12.25	14.25	19.00
End to End, Horizontal.....inches	5¾	6⅝	7½	8¼	9⅜	10¼
Center to Inlet or Outlet.....inches	2⅞	3 5/16	3¾	4⅛	4 11/16	5⅛

Size..... inches	5	6	7	8	10	12
Price.....each	22.00	30.00	45.00	57.00	105.00	155.00
End to End, Horizontal..... inches	11¼	12½	14	16	18¾	22
Center to Inlet or Outlet .....inches	5⅝	6¼	7	8	.....	.....

The 2 to 3 inch have brass caps.

Vertical Check Valves, No. 368.

Size..... inches	2½	3	3½	4	4½
Price..... each	9.50	12.50	17.00	21.00	30.00
End to End..... inches	6⅝	7½	8¼	9⅜	10¼

Size..... inches	5	6	7	8	10
Price..... each	33.00	40.00	62.00	73.00	125.00
End to End..... inches	11¼	12½	14	16	18¾

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STANDARD IRON BODY HORIZONTAL, ANGLE AND VERTICAL CHECK VALVES.

Brass Mounted.

Flanged.

HORIZONTAL CHECK VALVE.

FIG. 438.

No. 367.

Horizontal and Angle Check Valves Nos. 367 and 371.

Size.....inches	2	2½	3	3½	4	4½	5
Price.....each	5.25	8.25	11.50	15.50	18.00	22.50	26.00
Diameter of Flanges.....inches	6	7	7½	8½	9	9½	10
Face to Face, Horizontal..inches	8	8½	9½	10½	11	12	13
Center to Inlet or Outlet, Angle...inches	4	4¼	4¾	5¼	5½	6	6½

Size.....inches	6	7	8	10	12	14	15
Price.....each	35.00	50.00	62.00	115.00	175.00	300.00	300.00
Diameter of Flanges.....inches	11	12½	13½	16	19	21	22½
Face to Face, Horizontal..inches	14	16	17	20	24	28	28
Center to Inlet or Outlet, Angle...inches	7	8	8½	.....	.....	.....	.....

The 2 to 3 inch have brass caps.

Vertical Check Valves No. 369.

Size.....inches	2½	3	3½	4	4½
Price.....each	11.50	15.00	20.00	25.00	33.50
Diameter of Flanges...inches	7	7½	8½	9	9½
Face to Face.....inches	8½	9½	10½	11	12

Size.....inches	5	6	7	8	10
Price.....each	37.00	45.00	67.00	78.00	135.00
Diameter of Flanges...inches	10	11	12½	13½	16
Face to Face.....inches	13	14	16	17	20

Template for drilling see page 95.

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STANDARD IRON BODY SWING CHECK VALVES.

Brass or Leather Discs.

Screwed, Flanged and Hub Ends.

HORIZONTAL CHECK VALVE.
SCREWED.

FIG. 439.

No. 372.

HORIZONTAL CHECK VALVE.
FLANGED.

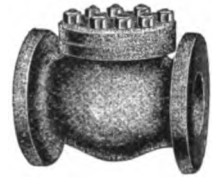

FIG. 440

No. 373.

Horizontal Check Valves, Screwed, No. 372.

Size.....inches	2½	3	3½	4	5	6	7	8	10	12
Price.....each	15.00	18.00	24.00	27.00	38.00	48.00	62.00	75.00	125.00	200.00
End to End.....in.	6⅝	7½	8¼	9⅜	11¼	12½	14	16	18¾	22

Horizontal Check Valves, Flanged, No. 373.

Size.....inches	2½	3	3½	4	5	6	7
Price.....each	17.00	21.00	27.00	30.00	42.00	52.00	67.00
Diameter of Flanges.....inches	7	7½	8½	9	10	11	12½
Face to Face.....inches	8½	9½	10½	11	13	14	16

Size.....inches	8	10	12	14	15	16	.....
Price.....each	80.00	135.00	220.00	350.00	350.00	475.00	.....
Diameter of Flanges.....inches	13½	16	19	21	22½	23½	.....
Face to Face.....inches	17	20	24	28	28	32	.....

Horizontal Check Valves, Hub Ends, No. 374.

Size.....inches	3	4	5	6	8	10	12	14	16
Price.....each	24.00	35.00	48.00	60.00	90.00	160.00	265.00	375.00	500.00

Swing Check Valves, screwed and flanged, for water, have LEATHER DISCS; for steam, Brass Discs.

Hub End Swing Check Valves always have Leather Discs.

If not otherwise specified, screwed and flanged Swing Check Valves with Brass Discs will always be sent.

Template for drilling, see page 95.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

COPPER DISC, IRON BODY GLOBE AND ANGLE VALVES.

Brass Mounted, with and without Yoke.
Screwed and Flanged.

GLOBE VALVE. WITHOUT YOKE.

FIG. 441.
No. 360.

GLOBE VALVE WITH YOKE

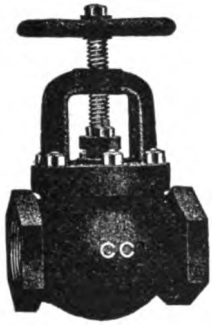

FIG 442.
No. 358.

GLOBE VALVE. FLANGED.

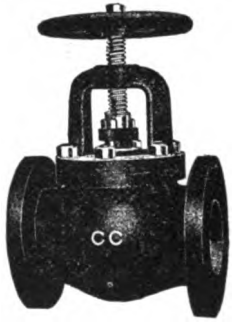

FIG. 443.
No. 359.

Globe and Angle Valves, Screwed, Without Yoke, No. 360.

Size ..... inches	2	2½	3
Price ..... each	7.25	11.00	16.00
End to End, Globe ..... inches	6¾	8⅛	8⅜
Center to Inlet or Outlet, Angle ..... inches	3 7/16	3½	4¼

Globe and Angle Valves, Flanged, Without Yoke, No. 361.

Size ..... inches	2	2½	3
Price ..... each	8.50	13.00	18.00
Diameter of Flanges ..... inches	6	7	7½
Face to Face, Globe ..... inches	8	9½	10
Center to Inlet or Outlet, Angle ..... inches	4	4¾	5

Globe and Angle Valves, Screwed, With Yoke, No. 358.

Size ..... inches	2½	3	3½	4	5	6	7	8	10	12
Price ..... each	12.00	16.75	19.50	24.00	40.00	48.00	80.00	90.00	130.00	185.00
End to End, Globe ..... inches	8	8½	9½	10½	12¼	14	17	18½	22½	25½
Center to Inlet or Outlet, Angle ... in.	4	4⅛	4¾	5¼	6⅛	7	8½	9¼	11¼	12¾

Globe and Angle Valves, Flanged, With Yoke, No. 359.

Size ..... inches	2½	3	3½	4	5	6	7	8	10	12
Price ..... each	14.00	18.50	21.50	26.00	42.00	50.00	80.00	90.00	130.00	185.00
Diameter of Flanges ..... inches	7	7½	8½	9	10	11	12½	13½	16	19
Face to Face, Globe ..... inches	9½	10	11	12	13¾	16	17	18½	22½	25½
Center to Inlet or Outlet, Angle ... in.	4¾	5	5½	6	6⅞	8	8½	9¼	11¼	12¾

Template for drilling see page 95.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

PRATT & CADY'S IRON BODY, ASBESTOS DISC, GLOBE, ANGLE AND CROSS VALVES.

Brass Mounted, without Yoke.

Screwed and Flanged.

GLOBE VALVE.

FIG. 444.

GLOBE VALVE. FLANGED.

FIG. 445.

Globe and Angle Valves, Screwed.

Size.....inches	1½	2	2½	3	3½	4
Price.....each	5.00	7.25	11.00	16.00	18.50	23.00
End to End, Globe.....inches	5	6	7⅛	8⅛	9⅛	10⅜
Center to Inlet or Outlet.....inches	2½	4⅛	4½	5¼	5⅞	7

Globe and Angle Valves, Flanged.

Size.....inches	1½	2	2½	3	3½	4
Price.....each	6.00	8.50	13.00	18.00	20.50	25.00
Diameter of Flanges.....inches	5	6	7	7½	8½	9
Face to Face, Globe.....inches	5½	6½	8	8½	10⅛	10¾
Center to Inlet or Outlet, Angle, inches	2⅝	4⅛	4⅝	4¼	5 1/16	5½

Cross Valves, Screwed.

Size.....inches	1½	2	2½	3	3½	4
Price.....each	12.00	14.00	16.00	21.00	25.00	27.00
End to End.....inches	5	6	8½	8¼	9	10½

Cross Valves, Flanged.

Size.....inches	1½	2	2½	3	3½	4
Price.....each	15.00	17.00	19.00	24.00	27.00	30.00
Diameter of Flanges.....inches	5	6	7	7½	8½	9
Face to Face.....inches	5¼	8¼	9¼	8½	10⅛	11

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

PRATT & CADY'S IRON BODY, ASBESTOS DISC, GLOBE, ANGLE AND CROSS VALVES.

Brass Mounted, with Yoke.

Screwed and Flanged.

GOBLE VALVE. SCREWED.

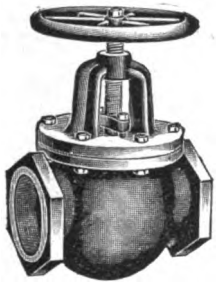

FIG 446.

GLOBE VALVE. FLANGED,

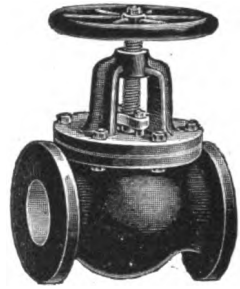

FIG. 447.

Globe and Angle Valves, Screwed.

Size.....inches	2½	3	3½	4	4½	5	6	7	8	10	12
Price.....each	12.00	16.75	19.50	24.00	32.00	40.00	48.00	80.00	90.00	130.00	185.00
End to End, Globe..inches	7⅛	8⅛	9⅛	10⅜	10¾	11¼	13¾	14½	16¼	20	23¾
Center to Inlet or Outlet, Angle.....inches	4¼	4⅛	4½	5¼	5⅜	5⅞	7	7¼	8⅛	10	11⅞

Globe and Angle Valves, Flanged.

Size.....inches	2½	3	3½	4	4½	5	6	7	8	10	12
Price.....each	14.00	18.50	21.50	26.00	34.00	42.00	50.00	80.00	90.00	130.00	185.00
Diameter of Flanges..	7	7½	8½	9	9½	10	11	12½	13½	16	19
Face to Face, Globe ..... inches	8	8½	10⅛	10¾	11⅜	12	15½	15⅝	17	20	23¾
Center to Inlet or Outlet, Angle.....inches	4⅝	4¼	5	5½	5¾	6¼	7⅜	7⅞	8½	10	11⅞

Cross Valves, Screwed.

Size.....inches	2	2½	3	3½	4	4½	5	6
Price .....each	14.00	16.00	21.00	26.00	30.00	42.00	45.00	58.00
End to End.....inches	6	8½	8¼	9	10½	10¾	11¾	14

Cross Valves, Flanged.

Size.....inches	2	2½	3	3½	4	4½	5	6
Price .....each	17.00	19.00	24.00	29.00	33.00	45.00	48.00	62.00
Diameter of Flanges.....inches	6	7	7½	8½	9	9¼	10	11
Face to Face.....inches	8¼	9¼	8½	10⅛	11	11⅜	12½	14¾

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PRATT & CADY'S IRON BODY, ROTATING DISC HORIZONTAL AND ANGLE CHECK VALVES.

Screwed, Flanged and Hub Ends.

HORIZONTAL CHECK VALVE. SCREWED.

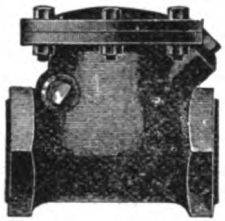

FIG. 448.

HORIZONTAL CHECK VALVE FLANGED.

FIG. 449.

Horizontal and Angle Check Valves, Screwed.

Size.....inches	2	2½	3	3½	4	4½	5	6	7	8	10	12
Price .....each	6.25	10.00	12.00	16.00	18.00	21.50	25.00	32.00	41.00	50.00	104.00	152.00
End to End, Horizontal..... inches	5⅞	7⅜	8	9¾	10	12	12	13½	14½	15	19¾	22½
Center to Inlet or Outlet, Angle... inches	.....	3¾	4	4⅞	5	.....	6	6¾	7¼	7½	.....	.....

Horizontal and Angle Check Valves, Flanged.

Size.....inches	2	2½	3	3½	4	4½	5	6	7	8	10	12
Price .....each	6.25	10.00	12.00	16.00	18.00	21.50	25.00	32.00	41.00	50.00	104.00	152.00
Diam. of Flanges, in.	6	7	7½	8½	9	9½	10	11	12½	13½	16	19
Face to Face, Horizontal.....inches	8⅜	8¼	8	9⅝	10½	11⅞	11⅞	13⅜	14½	15⅜	19¾	22½
Center to Inlet or Outlet, Angle...inches	.....	4⅛	4	4¾	5¼	.....	5⅞	6¾	7¼	7¾	.....	.....

Horizontal Check Valves, Hub Ends.

Size .....inches	2	3	4	5	6	7	8	10	12	14	16
Price.....each	6.25	12.00	18.00	25.00	32.00	41.00	50.00	104.00	152.00	289.00	334.00
Depth of Bell.....inches	2¾	2¾	3	3	3	3	3	3	3¼	3¼	3½

Extra Discs for Pratt & Cady's Iron Body Globe and Angle Valves.

Size ..... .inches	3	3½	4	4½	5	6	7	8	9	10	12
Price.....each	.60	.75	.90	1.10	1.25	1.60	2.40	2.90	4.75	4.75	5.50

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COMPOSITION DISC, IRON BODY GLOBE AND ANGLE VALVES.

Brass Mounted, with and without Yoke.
Screwed and Flanged.

GLOBE VALVE, WITHOUT YOKE

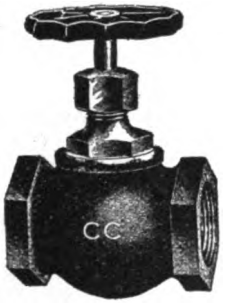

FIG. 450.
No. 360.

GLOBE VALVE, WITH YOKE.

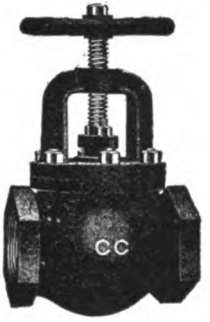

FIG. 451.
No. 358.

GLOBE VALVE, FLANGED.

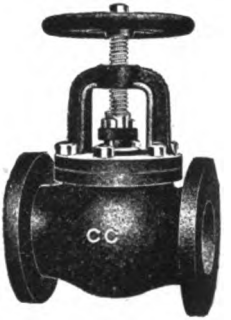

FIG. 452.
No. 359.

Globe and Angle Valves, Screwed, without Yoke, No. 360.

Size ..... inches	2	2½	3
Price ..... each	7.25	11.00	16.00
End to End, Globe ..... inches	6¾	8⅛	8⅝
Center to Inlet or Outlet, Angle ..... inches	3 7/16	3½	4¼

Globe and Angle Valves, Flanged, without Yoke, No. 361.

Size ..... inches	2	2½	3
Price ..... each	8.50	13.00	18.00
Diameter of Flanges ..... inches	6	7	7½
Face to Face, Globe ..... inches	8	9½	10
Center to Inlet or Outlet, Angle ..... inches	4	4¾	5

Globe and Angle Valves, Screwed, with Yoke, No. 358.

Size ..... inches	2½	3	3½	4	5	6	7	8	10	12
Price ..... each	12.00	16.75	19.50	24.00	40.00	48.00	80.00	90.00	130.00	185.00
End to End, Globe, inches	8	8½	9½	10½	12½	14	17	18½	22½	25½
Center to Inlet or Outlet, Angle...inches	4	4⅛	4¾	5¼	6⅛	7	8½	9¼	11¼	12¾

Globe and Angle Valves, Flanged, with Yoke, No. 359.

Size ..... inches	2½	3	3½	4	5	6	7	8	10	12
Price ..... each	14.00	18.50	21.50	26.00	42.00	50.00	80.00	90.00	130.00	185.00
Diameter of Flanges...in.	7	7½	8½	9	10	11	12½	13½	16	19
Face to Face, Globe ...in.	9½	10	11	12	13¾	16	17	18½	22½	25½
Center to Inlet or Outlet, Angle...inches	4¾	5	5½	6	6⅞	8	8½	9¼	11¼	12¾

Template for drilling, see page 95.

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JENKINS BROS.' IRON BODY GLOBE, ANGLE, CROSS AND CHECK VALVES.

Brass Mounted, with Yoke.
Screwed and Flanged.

GLOBE VALVE, WITH YOKE.

FIG. 453

ANGLE VALVE, WITH YOKE.

FIG. 454.

HORIZONTAL CHECK VALVE.

FIG. 455.

Globe and Angle Valves, Screwed.

Size....inches	2	2½	3	3½	4	4½	5	6	7	8	10	12
Price....each	10.00	12.00	16.75	19.50	24.00	32.00	40.00	48.00	80.00	90.00	130.00	185.00
End to End, Globe, ...inches	6½	7¾	9⅜	10	11⅞	12⅝	13¼	16	16½	18¾	21½	25¾
Center to Inlet or Outlet, Angle, in.	3¼	3⅞	4 1/16	5	5 1/16	6 5/16	6⅝	8	8¼	9⅜	10¾	12⅞

Globe and Angle Valves, Flanged.

Size....inches	2	2½	3	3½	4	4½	5	6	7	8	10	12
Price....each	11.75	14.00	18.50	21.50	26.00	34.00	42.00	50.00	80.00	90.00	130.00	185.00
Diam. of Flanges, in.	6	7	7½	8½	9	9½	10	11	12½	13½	16	19
Face to Face, Globe, ...inches	7	7½	9¼	10	11¾	12½	13	16	16	18½	21¼	24½
Center to Inlet or Outlet, Angle, in.	3⅞	4½	4⅝	5⅜	5⅞	6¼	6½	8	8	9¼	10⅝	12¼

Cross Valves, Screwed.

Size.....inches	2½	3	3½	4	4½	5	6
Price.....each	16.00	21.00	26.00	30.00	42.00	45.00	58.00

Cross Valves, Flanged.

Size .....inches	2½	3	3½	4	4½	5	6
Price .....each	19.00	24.00	29.00	33.00	45.00	48.00	62.00
Diameter of Flanges.....inches	7	7½	8½	9	9¼	10	11

Horizontal, Angle and Vertical Check Valves, Screwed and Flanged.

Size.....inches	2½	3	3½	4	5	6
Price, Screwed.....each	10.50	14.00	17.00	20.00	30.00	40.00
Price, Flanged.....each	12.50	16.50	20.00	23.00	33.00	43.00

Dimensions of Check Valves same as Globe and Angle Valves.

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LUNKENHEIMER'S IRON BODY GLOBE AND ANGLE VALVES.

Brass Mounted, with and without Yoke.

Screwed and Flanged.

For 150 Pounds Working Pressure.

GLOBE VALVE, WITHOUT YOKE.

FIG. 456.

GLOBE VALVE, WITH YOKE.

FIG. 457.

GLOBE VALVE, FLANGED.

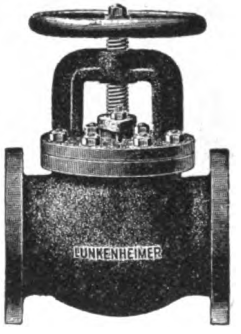

FIG. 458.

Globe and Angle Valves, Screwed, without Yoke.

Size..... inches	1	1¼	1½	2	2½	3
Price.....each	2.25	2.75	3.50	5.40	7.35	9.80
End to End, Globe .....inches	3 9/16	4¼	4⅝	5¾	7	8
Center to Inlet or Outlet, Angle..inches	1 25/32	2⅛	2 5/16	2⅞	3½	4

Globe and Angle Valves, Flanged, without Yoke.

Size..... inches	1	1¼	1½	2	2½	3
Price.....each	3.25	3.85	4.80	7.00	9.00	12.50
Diameter of Flanges.....inches	4	4½	5	6	7	7½
Face to Face, Globe.....inches	5 3/16	5¾	6¼	7½	8½	9¼
Center to Inlet or Outlet, Angle..inches	2 9/32	2⅞	3 1/16	3¾	4¼	4⅝

Globe and Angle Valves, Screwed, with Yoke.

Size.....inches	2	2½	3	3½	4	4½	5	6	7	8
Price..... .....each	7.00	9.00	12.50	15.25	19.00	24.00	27.00	37.50	63.00	72.00
End to End, Globe.....inches	5¾	7	8	9	10	10¾	11⅝	13	14½	16
C. to Inlet or Outlet, Angle...in.	2⅞	3½	4	4½	5	5⅜	5 13/16	6½	7¼	8

Globe and Angle Valves, Flanged, with Yoke.

Size.....inches	2	2½	3	3½	4	4½	5	6	7	8
Price ..... each	8.60	10.75	15.00	18.50	22.50	27.50	31.00	42.00	68.00	77.00
Diameter of Flanges.....inches	6	7	7½	8½	9	9¼	10	11	12½	13½
Face to Face, Globe.....inches	7½	8½	9¼	10¼	11	11½	12¼	13 5/8	14 7/8	16¼
C. to Inlet or Outlet, Angle...in.	3¾	4¼	4⅝	5⅛	5½	5¾	6⅛	6 13/16	7 7/16	8⅛

☞ Globe and Angle Valves without Yoke *are not Recommended for 150 Pounds Working Pressure.*

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LUNKENHEIMER'S IRON BODY HORIZONTAL, ANGLE AND SWING CHECK VALVES.

Screwed and Flanged.

HORIZONTAL CHECK VALVE, SCREWED.

FIG. 459.

HORIZONTAL CHECK VALVE, FLANGED.

FIG. 460.

SWING CHECK VALVE, SCREWED.

FIG. 461.

Horizontal and Angle Check Valves, Screwed.

Size.....inches	2	2½	3	3½	4	4½	5	6	7	8
Price.....each	3.60	6.50	8.90	12.25	14.25	19.00	22.00	30.00	45.00	57.00
End to End, Horizontal..... inches	5¾	7	8	9	10	10¾	11⅝	13	14½	16
Center to Inlet or Outlet, Angle, inches	2⅞	3½	4	4½	5	5⅜	5 13/16	6½	7¼	8

Horizontal and Angle Check Valves, Flanged.

Size.....inches	2	2½	3	3½	4	4½	5	6	7	8
Price..... each	5.25	8.25	11.50	15.50	18.00	22.50	26.00	35.00	50.00	62.00
Diameter of Flanges...inches	6	7	7½	8½	9	9½	10	11	12½	13½
Face to Face, Horizontal ... inches	7½	8½	9½	10½	11	11½	12¼	13⅝	14⅞	16¼
C. to Inlet or Outlet, Angle...inches	3¾	4¼	4⅝	5⅛	5½	5¾	6⅛	6 13/16	7 7/16	8⅛

Horizontal Swing Check Valves, Screwed and Flanged.

Size.....inches	2	2½	3	3½	4	4½	5	6
Price, Screwed.....each	6.25	10.00	12.00	16.00	18.00	21.00	25.00	32.00
Price, Flanged ..... each	6.25	10.00	12.00	16.00	18.00	21.00	25.00	32.00
End to End, Screwed, inches	5 1/16	7¼	8 3/16	9	9 1/16	10 1/16	11 1/16	12 1/16
Diameter of Flanges, inches	6	7	7½	8½	9	9½	10	11
Face to Face, Flanged.....inches	8	9	9 1/16	10 3/16	11¾	12¾	13 7/16	14⅝

Swing check valves are warranted to stand 175 pounds working pressure.

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IRON BODY THROTTLE AND BUTTERFLY VALVES.

Brass Mounted.

THROTTLE VALVE.

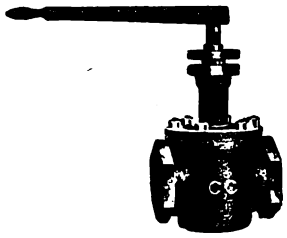

FIG. 492.

LUNKENHEIMER'S LEVER THROTTLE VALVE.

FIG. 463.

No. 382.

Throttle Valves, Screwed, No. 382.

Size ..... inches	2½	3	3½	4
Price ..... each	30.00	40.00	50.00	60.00
End to End ..... inches	7⅞	8	8¾	9¾

Throttle Valves, Flanged, No. 383.

Size ..... inches	2½	3	3½	4
Price ..... each	32.00	42.50	53.00	64.00
Face to face ..... inches	8⅜	9⅜	10½	11½

Template for drilling see page .95

Lunkenheimer's Lever Throttle Valves, Screwed. For 175 Pounds Working Pressure.

Size ..... inches	2½	3	3½	4	5	6
Price ..... each	16.00	20.00	25.00	30.00	35.00	40.00
End to End ..... inches	6 1½	6 1⅛	7⅛	7⅝	8¼	9¼

BUTTERFLY VALVE.

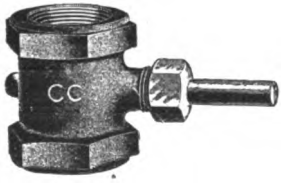

FIG. 464.

No. 380.

Butterfly Valves, Screwed, No. 380.

Size ..... inches	2	2½	3	3½	4	5	6
Price ..... each	8.00	9 50	12.00	16.00	18.50	28.50	42.50
End to End ..... inches	4¼	4¾	5¼	5½	6	6¾	7½

Butterfly Valves, Flanged, No. 381.

Size ..... inches	2	2½	3	3½	4	5	6	8	10	12
Price ..... each	9.50	11.50	15.00	19.00	22.00	32.00	47.00	90.00	125.00	160.00
Face to Face ... in.	4¼	4¾	5¼	5½	6	6¾	7½	9¼	10¾	12½

Template for drilling see page 95.

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HARD METAL AND IRON BODY BLOW-OFF VALVES.

Screwed and Flanged.

BLOW-OFF VALVE, HARD METAL.

FIG. 465.

BLOW-OFF VALVE, FLANGED.

FIG. 466.

CADMAN'S SLOW-OFF VALVE

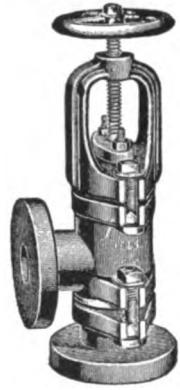

FIG. 467.

No. 392. **No. 391.**

Hard Metal Blow-Off Valves, Screwed, No. 392.

Size.....inches	1	1¼	1½	2	2½
Price.....each	3.50	5.00	7.00	10.00	20.00
Center to Inlet or Outlet...inches	.....	.....	.....	4½	5

Iron Body Blow-Off Valves, Screwed, No. 390.

Size.....inches	2	2½	3
Price.....each	15.00	20.00	30 00
Center to Inlet or Outlet.....inches	4½	5	5¾

Iron Body Blow-Off Valves, Flanged, No. 391.

Size.....inches	2	2½	3
Price.....each	15.00	20.00	30.00
Diameter of Flanges.....inches	6½	7½	8½
Center to Inlet or Outlet.....inches	5	5¾	6⅝

Cadman's Iron Body Blow-Off Valves, Flanged.

Size.....inches	2	2½	3
Price.....each	18 00	20.00	30.00
Diameter of Flanges.....inches	7	7½	8
Center of Inlet to Face of Outlet.....inches	6	6⅜	6¾
Face of Inlet to Center of Body.....inches	5	5½	5½

Template for drilling No. 391, see page 221.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

LUNKENHEIMER'S IRON BODY BLOW-OFF VALVES.

THE "DURO," SCREWED.

FIG. 468.

REVERSIBLE DISC, FLANGED

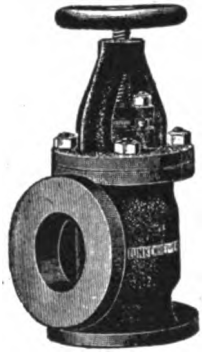

FIG. 469.

The "Duro", Iron Body Blow-Off Valves, Screwed.

Size.....inches	1¼	1½	2	2½	3
Price.....each	7.50	10.00	13.50	18.20	27.50
Center to Inlet or Outlet.....inches	3⅜	3¾	4⅛	4¾	5⅜

The "Duro", Iron Body Blow-Off Valves, Flanged.

Size.....inches	1¼	1½	2	2½	3
Price.....each	8.10	10.80	14.40	19.20	28.60
Diameter of Flanges...inches	5⅛	6⅛	6½	7¼	8¼
Center to Inlet or Outlet....inches	4	4 5/16	4⅝	5¼	5¾

Reversible Disc, Iron Body Blow-Off Valves, Screwed.

Size.....inches	2	2½	3
Price.....each	13.50	18.20	27.50
Center to Inlet or Outlet.....inches	2⅞	3½	4

Reversible Disc, Iron Body Blow-Off Valves, Flanged.

Size.....inches	2	2½	3
Price.....each	15.00	20.00	30.00
Diameter of Flanges.....inches	6	7	7½
Center to Inlet or Outlet.....inches	3¾	4¼	4⅝

The "Duro", Iron Body Blow-Off Valves, Screwed and Flanged.

Size.....inches	1¼	1½	2	2½	3
Price.....each	8.10	10.80	14.40	19.20	28.60

Reversible Disc, Iron Body Blow-Off Valves, Screwed and Flanged.

Size.....inches	2	2½	3
Price.....each	14.40	19.20	28.60

Reversible Disc Valves are guaranteed for working pressure up to 250 pounds.

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STANDARD IRON BODY FOOT VALVES.

With Strainer.

FOOT VALVE, ¾ TO 6 INCH.

FIG. 470.

No. 394.

FOOT VALVE, 7 TO 16 INCH

FIG. 471.

No. 395

Foot Valves, Screwed, No. 394.

Size ..... inches	¾	1	1¼	1½	2	2½	3	3½
Price, Black.....each	1.15	1.30	1.40	1.90	2.40	3.30	3.90	5.60
Price, Galvanized...each	1.75	2.00	2.10	2.85	3.60	5.00	5.75	8.50

Size ..... inches	4	4½	5	6	7	8	10	12
Price, Black.....each	7.30	10.50	11.25	14.75	35.00	41.00	64.00	100.00
Price, Galvanized...each	11.00	15.75	16.75	22.00	.....	.....	.....	.....

Foot Valves, Flanged, No. 395.

Size ..... inches	2	2½	3	3½	4	4½	5	6
Price .....each	3.50	4.50	5.75	7.50	9.50	13.00	14.00	17.50
Diameter of Flanges..in.	6	7	7½	8½	9	9½	10	11

Size ..... inches	7	8	10	12	14	15	16	.....
Price .....each	38.00	45.00	70.00	112.00	150.00	150.00	200.00	.....
Diameter of Flanges..in.	12½	13½	16	19	21	22½	23½	.....

These Valves as constructed, insure free openings.

Template for drilling, see page 95.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

IRON STRAINERS.

Black and Galvanized.

STRAINER, SCREWED.

FIG. 472.

STRAINER, FLANGED

FIG. 473.

MUSHROOM STRAINER.

FIG. 474.

Strainers, Screwed.

Size .....inches	1	1¼	1½	2	2½	3	3½	4	4½	5	6	8
Price, Black...each	.40	.50	.75	1.00	1.50	2.00	3.00	3.75	4.75	4.75	6.50	12.00
Price, Galv.. ..each	.50	.75	1.00	1.50	2.00	3.00	4.50	6.00	7.00	7.00	10.00	20.00

Strainers, Flanged.

Size.....inches	2½	3	3½	4	4½	5	6	8
Price, Black.....each	2.40	2.75	3.90	4.75	6.25	6.25	9.75	18.00
Price, Galvanized...each	3.50	4.00	5.25	7.00	9.00	9.00	14.00	25.00

Mushroom Strainers, Screwed.

Size.....inches	1½	2	2½	3
Price, Black.....each	1.25	1.50	2.00	2.75
Price, Galvanized.....each	1.75	2.25	3.00	4.00

FLOAT VALVE.

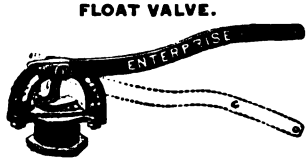

FIG. 475.

Size.....inches	¾	1	1¼	1½	2	2½	3
Price .....each	1.25	1.40	1.50	3.00	5.00	7.50	10.00

Railroad Float Valves, not Illustrated.

Size .....inches	4	5	6	7	8
Price, Screwed.....each	22.00	32.00	45.00	60.00	75.00
Price, Flanged.....each	25.00	36.00	50.00	65.00	80.00

Floats, not Illustrated.

Size.....inches	3x11	4x16	4x24	4x36	4x48
Price, Galvanized Iron.....each	1.10	2.40	5.00	8.00	14.00

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BRASS GATE VALVES.

Screwed and Flanged.

GATE VALVE, NON-RISING STEM, GLAND AND WEDGE GATE.

FIG. 476.

No 438.

GATE VALVE, RISING STEM AND DOUBLE GATE.

FIG. 477.

No. 440.

Gate Valves, Screwed, No. 438.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	1.20	1.20	1.30	1.75	2.25	3.25	4.25	6.25	11.50	16.00

Gate Valves, Flanged, No. 439.

Size.....inches	1	1¼	1½	2	2½	3
Price.....each	4.00	5.00	7.50	10.50	16.00	20.00
Diameter of Flanges.....inches	4	4½	5	6	7	7½

Gate Valves, Screwed, No. 440.

Size.....inches	¼	⅜	½	¾	1	1¼	1½
Price.....each	1.25	1.25	1.30	1.75	2.50	3.50	5.00

Size.....inches	2	2½	3	3½	4	5	6
Price.....each	7.50	14.00	20.00	32.00	50.00	70.00	120.00

Gate Valves, Flanged, No. 441.

Size.....inches	2	2½	3	*3½	*4	*5	*6
Price.....each	14.00	24.00	34.00	45.00	60.00	85.00	135.00
Diameter of Flanges.....inches	6	7	7½	8½	9	10	11
Face to Face.....inches	5 1/16	6	6 5/16	6¼	7	9¼	10¾

Template for drilling see page 95.

*3½ to 6 inch valves have flanged bonnet and non-rising stems.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

LUNKENHEIMER'S BRASS GATE VALVES.

Double Gate, Screwed and Flanged.

For 175 Pounds Working Pressure

GATE VALVE, SCREWED.

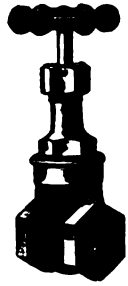

FIG. 478.

GATE VALVE, FLANGED.

FIG. 479.

SPECIAL GATE VALVE.

FIG. 480.

Gate Valves, Screwed.

Size ..... inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price ..... each	1.10	1.10	1.30	1.90	2.50	3.50	5.00	7.50	14.00	20.00
End to End ... inches	1 7/8	1 7/8	2 3/16	2 3/8	2 5/8	2 7/8	3 13/32	3 1/8	4 17/32	5

Gate Valves, Flanged.

Size ..... inches	⅜	½	¾	1	1¼	1½	2	2½	3
Price. ..... each	2.60	3.00	4.00	5.30	7.70	10.50	14.00	21.00	32.00
Diameter of Flanges ... in.	2 1/2	3	3 1/2	4	4 1/2	5	6	7	7 1/2
Face to Face ..... inches	2 1/16	2 7/16	2 13/16	3 1/4	3 11/16	1 9/32	4 27/32	5 13/16	6 5/8

Special Gate Valves, Screw and Flanged End.

Size ..... inches	⅜	½	¾	1	1¼	1½	2	2½	3
Price ..... each	2.00	2.40	3.10	4.20	5.90	8.20	11.20	18.00	27.20
Diameter of Flanges ... in.	2 1/2	3	3 1/2	4	4 1/2	5	6	7	7 1/2
End to Face ..... inches	1 31/32	2 19/32	2 21/32	2 13/16	3 9/32	3 27/32	4 23/64	5 11/64	5 13/16

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RENSSELAER BRASS GATE VALVES.

Double Gate, Screwed and Flanged.

GATE VALVE, NON-RISING STEM.

FIG. 481.

WATER WORKS SERVICE GATE VALVE.

FIG. 482.

QUICK OPENING GATE VALVE.

FIG. 483.

Gate Valves, Non-Rising or Rising Stem, Screwed.

Size ..... inches	¼	¾	1	1¼	1½	2	2½	3
Price..... each	1.50	1.90	2.40	3.50	4.60	6.25	13.75	16.00
End to End..... inches	2¼	2½	2⅞	3⅜	3¾	4⅛	4⅞	5

Gate Valves, Non-Rising or Rising Stem, Flanged.

Size..... inches	1¼	1½	2	2½	3	3½	4	5	6
Price..... each	6.00	7.75	11.50	19.00	22.00	31.00	43.00	64.00	90.00
Diameter of Flanges...in.	4½	5	6	6½	7	.....	9	10	11
Face to Face..... inches	3½	3⅝	4⅝	5⅜	6¼	.....	7	8	9

Water Works Service Gate Valves, Screwed

Size..... inches	½	¾	1	1¼	1½	2
Price..... each	1.50	1.90	2.40	3.50	4.60	6.25

Gate Valves, Quick Opening, Screwed.

Size ..... inches	¼	¾	1	1¼	1½	2	2½	3
Price ..... each	2.50	3.10	3.80	5.10	6.40	8.25	16.00	18.50
End to End..... inches	2¼	2½	2⅞	3⅜	3¾	4⅛	4⅞	5

Gate Valves, Quick Opening, Flanged.

Size..... inches	1¼	1½	2	2½	3	3½	4	5	6
Price..... each	7.60	9.55	13.50	21.25	24.50	33.75	46.00	67.50	94.00
Diameter of Flanges...in.	4½	5	6	6½	7	.....	9	10	11
Face to Face..... inches	3½	3⅝	4⅝	5⅜	6¼	.....	7	8	9

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QUICK OPENING BRASS GATE VALVES.

Screwed and Flanged.

QUICK OPENING GATE VALVE.
DOUBLE GATE.

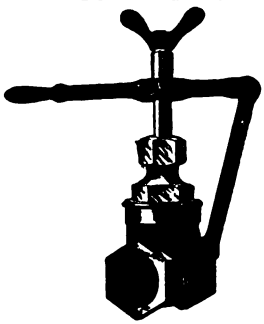

FIG 484.

No. 442.

LUNKENHEIMER'S
"HANDY" GATE VALVE.

FIG. 485.

Gate Valves, Quick Opening, Screwed, No. 442.

Size.....inches	¾	1	1¼	1½	2	2½	3
Price.....each	3.25	4.50	6.00	8.00	12.00	22.00	30.00

Gate Valves, Quick Opening, Flanged, No. 443.

Size.....inches	2	2½	3
Price.....each	18.50	32.00	45.00
Diameter of Flanges.....inches	6	7	7½
Face to Face.....inches	5	6	6¾

Template for drilling, see page 95.

Lunkenheimer's Handy Gate Valves, Screwed.

Size.....inches	½	¾	1	1¼	1½	2	2½	3	3½	4
Price.....each	1.60	1.80	2.50	3.50	5.00	7.50	13.50	19.00	40.00	60.00
End to End ...inches	2	$2\frac{1}{16}$	$2\frac{3}{8}$	$2\frac{9}{16}$	$2\frac{7}{8}$	3	$3\frac{5}{8}$	$3\frac{5}{8}$	.....	.....

"Handy" Gate Valves are for pressures not to exceed 75 pounds.

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BRASS GATE VALVES.

Double Gate.

GATE VALVE, WOOD WHEEL.

FIG. 486.
No. 444.

HOSE GATE VALVE

FIG. 487.
No. 450.

Gate Valves, Wood Wheel, No. 444.

Size .....inches	½	¾	1	1¼	1½	2
Price, Rough Body.....each	1.70	2.25	3.05	4.25	5.85	9.05
Price, Rough Body, Nickel Plated..each	2.00	2.60	3.45	4.70	6.35	9.80
Price, Finished.....each	2.65	3.25	4.50	6.00	7.50	12.00
Price, Finished and Nickel Plated, each	2.95	3.60	4.90	6.45	8.00	12.75

Gate Valves, Wood Wheel and Union, No. 446.

Size .....inches	½	¾	1	1¼	1½	2
Price, Rough Body.....each	2.75	3.35	4.20	5.50	7.25	11.35
Price, Rough Body, Nickel Plated, each	3.10	3.75	4.65	6.10	7.85	12.10

Hose Gate Valves, Iron Wheel, No. 450.

Size ..... inches	1	1¼	1½	2	2½	3
Price, Rough Body, without Cap and Chain, each	2.50	3.50	5.00	7.50	14.00	20.00
Price, Rough Body, with Cap and Chain...each	3.75	4.85	6.50	9.25	16.50	23.50

Hose Gate Valves, Finished; Brass Wheel, No. 452.

Size .....inches	1	1¼	1½	2	2½	3
Price, Finished, without Cap or Chain....each	5.50	7.25	8.75	13.25	22.00	30.00
Price, Finished, with Cap and Chain..... each	6.75	8.60	10.25	15.00	24.50	33.50
Price, Finished and Nickel Plated, without Cap or Chain. ea.	5.90	7.70	9.25	14.00	23.00	31.50
Price, Finished and Nickel Plated, with Cap and Chain.. ea.	7.35	9.35	11.00	16.00	26.00	35.50

Hose valves have standard iron pipe thread on female end and hose thread on male end. When ordering, send sample hose thread.

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VALVE STANDARD AND INDICATOR POSTS.

Standard and Indicator.

For Valves from 4 to 24 Inches.

Height, 32 Inches; Diameter of Base, 12 Inches.

STANDARD AND INDICATOR.

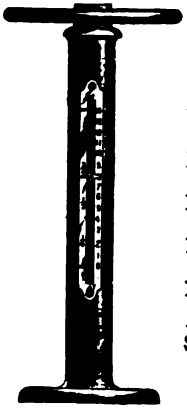

FIG. 488.
No. 520.

Price, Painted Column, Japanned Wheel, no Indicator...	20.00
Price, Painted Column, Japanned Wheel, with Indicator.	27.00
Price, Finished Column, Japanned Wheel, no Indicator...	35.00
Price, Finished Column, Japanned Wheel, with Indicator.	42.00
Price, Finished Column, Semi-Finished Wheel, no Indicator....	48.00
Price, Finished Column, Semi-Finished Wheel, with Indicator..	55.00

Stems Extra; According to Length: Size and Style of Valve.

Indicator Posts, Prices on Application.

INDICATOR POST.

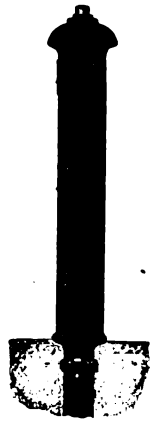

FIG. 489

LOW PRESSURE IRON BODY GATE VALVES

Brass Mounted, Non-Rising Stem, Flanged
For 50 Pounds Working Pressure

FIG. 490.
No. 491.

Gate Valves, Flanged, No. 491.

Size.....inches	16	18	20	24
Price.....each	275.00	375.00	425.00	600.00
Diameter of Flanges.....inches	23½	25	27½	32
Face to Face.....inches	13	13½	14½	16

Template for drilling, see page 95.

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STANDARD IRON BODY GATE VALVES.

Brass Mounted, Non-Rising Stem, Screwed and Flanged.

Wedge Gate.

GATE VALVE, SCREWED.

FIG. 491.
No. 460.

GATE VALVE, FLANGED

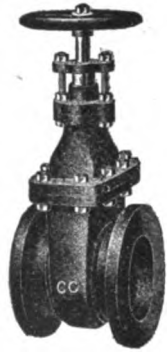

FIG. 492.
No. 461.

Gate Valves, Screwed, No. 460.

Size ..... inches	2	2½	3	3½	4	4½	5
Price ..... each	10.00	12.00	15.00	18.00	20.00	23.00	25.00
End to End.....inches	5 7/16	5 7/8	6 1/8	6 1/2	6 7/8	7 1/4	7 5/16

Size ..... inches	6	7	8	9	10	12	.....
Price .....each	30.00	45.00	55.00	80.00	90.00	125.00	.....
End to End.....inches	7 3/4	8 1/4	8 11/16	10 1/4	9 7/8	11 5/8	.....

Gate Valves, Flanged, No. 461.

Size ..... inches	2	2½	3	3½	4	4½	5	6
Price .....each	10.00	12.00	15.00	18.00	20.00	23.00	25.00	30.00
Diameter of Flanges..in.	6	7	7½	8½	9	9½	10	11
Face to Face .....inches	7	7½	8	8½	9	9½	10	10½

Size ..... inches	7	8	9	10	12	14	15	16
Price..... each	45.00	55.00	80.00	90.00	125.00	190.00	190.00	275.00
Diameter of Flanges..in.	12½	13½	15	16	19	21	22½	23½
Face to Face .....inches	11	11½	12	13	14	15	15	16

Size ..... inches	18	20	22	24	30	36	.....	.....
Price .....each	375.00	425.00	525.00	600.00	1200.00	.....	.....	.....
Diameter of Flanges..in.	25	27½	29½	32	38¾	45¾	.....	.....
Face to Face .....inches	17	18	19	20	30	36	.....	.....

Template for drilling, see page 95.

☞ Above Valves are working pressure as follows:
2 to 16 inch, 125 pounds; 18 to 36 inch, 100 pounds.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STANDARD IRON BODY GATE VALVES.

Brass Mounted, Screwed and Flanged.

Wedge Gate.

GATE VALVE,
WITH OUTSIDE SCREW AND YOKE.

FIG. 493.
No. 465.

GATE VALVE,
WITH INDICATOR.

FIG. 494.
No 469.

Gate Valves, Screwed, No. 464.

Size ..... inches	2	2½	3	3½	4	4½	5
Price ..... each	18.00	20.00	23.00	28 00	33.00	40.00	46.00

Size ..... inches	6	7	8	9	10	12	.....
Price ..... each	55.00	70.00	90.00	115.00	135.00	170.00	

Gate Valves, Flanged, No. 465.

Size ... in.	2	2½	3	3½	4	4½	5	6	7	8
Price...ea.	18.00	20.00	23.00	28.00	33.00	40.00	46.00	55.00	70.00	90.00

Size.... in.	9	10	12	14	15	16	18	20	24	30
Price...ea.	115.00	135..00	170.00	240.00	240.00	350.00	475.00	550.00	750.00	1400.00

Gate Valves, Screwed, No. 468.

Size ..... inches	2	2½	3	3½	4	4½	5
Price ..... each	15.00	18.00	22.00	27.00	30.00	34.00	36 00

Size ..... inches	6	7	8	9	10	12	.....
Price ..... each	44.00	60.00	75.00	100.00	115.00	155.00	.....

Gate Valves, Flanged, No. 469.

Size ..... inches	2	2½	3	3½	4	4½	5	6
Price ..... each	15.00	18.00	22.00	27.00	30 00	34.00	36.00	44.00

Size ..... inches	7	8	9	10	12	14	15	16
Price ..... each	60.00	75.00	100.00	115.00	155.00	225.00	225.00	325.00

Dimensions same as Valves on pages 166.
Template for drilling, see page 95.

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PRICE FOR DRILLING LOW PRESSURE AND STANDARD FLANGED VALVES.

Size Inches	Price, Drilling Valves with two Flanges except Angle Valves. Each.	Price, Drilling Angle Valves. Each.	Price, Drilling Cross Valves, Cross Safety Valves. Each	Price, Drilling Pop Safety Valves. Each.
2	.75	1.25	1.50	.....
2½	.75	1.25	1.50	.75
3	.75	1.25	1.50	.75
3½	1.00	1.50	2.00	1.00
4	1.25	1.75	2.50	1.25
4½	1.50	2.00	3.00	1.50
5	1.50	2.00	3.00	1.50
6	1.75	2.50	3.50	1.75
7	2.25	3.00	4.50	.....
8	2.25	3.00	4.50	.....
9	2.50	3.50	5.00	.....
10	2.50	3.50	5.00	.....
12	3.50	5.00	7.00	.....
14	4.00	6.00	.....	.....
15	4.50	6.50	.....	.....
16	5.00	7.00	.....	.....
18	6.00	.....	.....	.....
20	7.50	.....	.....	.....
22	9.00	.....	.....	.....
24	10.00	.....	.....	.....
30	12.00	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

QUICK OPENING, IRON BODY GATE VALVES.

Brass Mounted, Screwed and Flanged.

QUICK OPENING GATE VALVE.
WEDGE GATE.

FIG 495.
No. 470.

LUNKENHEIMER'S "HANDY."
GATE VALVE.

FIG. 496.

Gate Valves, Quick Opening, Screwed, No. 470.

Size.....inches	2	2½	3	3½	4	4½	5
Price.....each	16.00	18.00	22.00	25.00	27 00	30.00	34.00

Size.....inches	6	7	8	9	10	12	.....
Price.....each	40.00	57.00	69.00	96.00	110.00	150.00	.....

Gate Valves, Quick Opening, Flanged, No. 471.

Size.....inches	2	2½	3	3½	4	4½	5	6
Price.....each	16 00	18.00	22.00	25.00	27.00	30.00	34.00	40.00
Diameter of Flanges, in.	6	7	7½	8½	9	9¼	10	11

Size.....inches	7	8	9	10	12	14	15	16
Price.....each	57.00	69.00	96.00	110.00	150.00	225.00	225.00	325.00
Diameter of Flanges, in.	12½	13½	15	16	19	21	22¼	23½

Other dimensions same as Valves, page 166.

Lunkenheimer's Handy Gate Valves, Screwed.

Size.....inches	2	2½	3	3½	4	4½	5	6	8
Price.....each	7.00	12.00	15.00	18.00	21.00	25.00	30.00	35.00	65.00
End to End....inches	$4\frac{9}{32}$	$4\frac{1}{2}$	5	$6\frac{1}{16}$	$6\frac{5}{16}$	$6\frac{1}{2}$	$7\frac{1}{4}$	$8\frac{3}{8}$	$9\frac{1}{8}$

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IRON BODY WATER GATES.

Brass Mounted, Wedge Gate.

WATER GATE, HUB ENDS

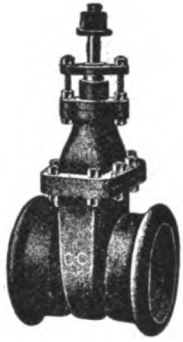

FIG. 497.

WATER GATE, SPUR GEARING, FLANGED.

FIG. 498.

Water Gates, No. 462.

Size .....inches	2	3	4	5	6	7	8	10	12
Price.....each	10.00	15.00	20.00	25.00	30.00	45.00	55.00	90.00	125.00
End to End.....inches	8	9½	11	11	11½	12	12	14	15½
End to End of Pipe....in.	3	3½	4	4	4¾	4¾	5	5¾	6½
When Laid in Bell. Inside Diam. Bell Socket .....inches	3⅛	4¾	5¾	6⅞	7⅞	8⅞	10	12	14¼

Size .....inches	14	16	18	20	22	24	30	36
Price.....each	190.00	275.00	375.00	425.00	525.00	600.00	1200.00	.....
End to End.. .....inches	15½	16	17½	17½	18	19	30	32
End to End of Pipe....in.	6¾	8	9	9	9½	10	21	23
When Laid in Bell. Inside Diam. Bell Socket.....inches	16¼	18½	20⅝	22¾	24¾	26⅞	33¼	39½

Can furnish, when so ordered, Valves to open to the right, at same price.

Water Gates, No. 463.

Size .....inches	16	18	20	22	24	30	36
Price, with either Spur or Bevel Gearing.....each	375.00	475.00	550.00	650.00	725.00	1400.00	.....

These Valves can be furnished with either spur gearing (to stand upright) or with bevel gearing (to lie on side).

These Valves can be furnished with Hub Ends at same price.

For dimensions, see page 166.

Template for drilling, see page 95.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

MEDIUM IRON BODY GATE VALVES.

Brass Mounted, Screwed and Flanged.

For 150 Pounds Working Pressure.

GATE VALVE, FLANGED.

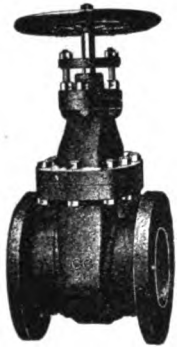

FIG. 499.

No. 501.

GATE VALVE, FLANGED, WITH BY-PASS.

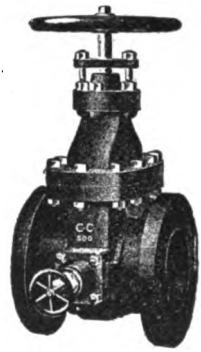

FIG. 500.

No. 503.

Gate Valves, Screwed, No. 500.

Size .....inches	2½	3	3½	4	4½	5	6	7	8	9	10	12
Price.....each	12.00	15.00	18.00	20.00	23.00	25.00	30.00	45.00	55.00	80.00	90.00	125.00
End to End..inches	6	7¼	7½	7¾	8¼	8½	8¾	9¼	10	10¾	11½	12½

Gate Valves, Flanged, No. 501.

Size.....inches	2½	3	3½	4	4½	5	6	7
Price.....each	12.00	15.00	18.00	20.00	23.00	25.00	30.00	45.00
Diameter of Flanges.....inches	7½	8½	9	10	10½	11	12½	14
Face to Face.....inches	8	9½	10	10½	11	11½	12	12½

Size .....inchss	8	9	10	12	14	15	16	.....
Price.....each	55.00	80.00	90.00	125.00	190.00	190.00	275.00	.....
Diameter of Flanges.....inches	15	16	17½	20	22½	23½	25	.....
Face to Face.....inches	13½	14	15	16	17	17	18	.....

Gate Valves, Flanged, With By Pass, No. 503.

Size.....inches	8	9	10	12	14	15	16	18	20	24
Price.....each	90:00	115.00	125.00	165.00	240.00	240.00	325.00	425.00	495.00	685.00
Diameter of Flanges...in.	15	16	17½	20	22½	23½	25	27	29½	34
Size, by Pass...in.	1½	1½	1½	2	2	2	3	3	4	4
Face to Face...in.	13½	14	15	16	17	17	18	19	20	22

Template for drilling, see page 221.

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MEDIUM IRON BODY GATE VALVES.

With Outside Screw and Flanged

Brass Mounted, Screwed and Flanged.

For 150 Pounds Working Pressure.

GATE VALVE, FLANGED.

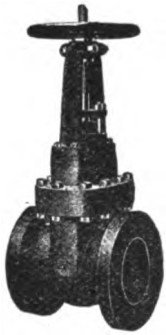

FIG. 501.

No. 505.

GATE VALVE, FLANGED, WITH BY-PASS.

FIG. 502.

No. 507.

Gate Valves, Screwed, No. 504.

Size .. inches	2½	3	3½	4	4½	5	6	7	8	9	10	12
Price.... each	20.00	23.00	28.00	33.00	40.00	46.00	55.00	70.00	90.00	115.00	135.00	170.00
End to End..inches	6	7¼	7½	7¾	8¼	8½	8¾	9¼	10	10¾	11½	12½

Gate Valves, Flanged, No. 505.

Size ..... inches	2½	3	3½	4	4½	5	6	7
Price..... each	20.00	23.00	28.00	33.00	40.00	46.00	55.00	70.00
Diameter of Flanges.....inches	7½	8¼	9	10	10½	11	12½	14
Face to Face.....inches	8	9½	10	10½	11	11½	12	12½

Size ..... inches	8	9	10	12	14	15	16	.....
Price .....each	90.00	115.00	135.00	170.00	240.00	240.00	350.00	.....
Diameter of Flanges.....inches	15	16	17½	20	22½	23½	25	.....
Face to Face.....inches	13½	14	15	16	17	17	18	.....

Gate Valves, Flanged, With By Pass, No. 507

Size .....inches	8	9	10	12	14	15	16	18	20	24
Price ... .each	125.00	150.00	170.00	210.00	290.00	290.00	400.00	525.00	625.00	835.00
Diameter of Flanges...in.	15	16	17½	20	22½	23½	25	27	29½	34
Size, By Pass..in.	1½	1½	1½	2	2	2	3	3	4	4
Face to Face...in.	13½	14	15	16	17	17	18	19	20	22

Template for drilling, see page 221.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

ALL IRON GATE VALVES.

Screwed, Flanged and Hub Ends.

GATE VALVE.

FIG. 503.

No. 472.

Gate Valves, Screwed, No. 472.

Size.....inches	2	2½	3	3½	4	4½	5
Price.....each	10.00	12.00	15.00	18.00	20.00	23.00	25.00

Size.....inches	6	7	8	9	10	12	.....
Price.....each	30.00	45.00	55.00	80.00	90.00	125.00	.....

Gate Valves, Flanged, No. 473.

Size.....inches	2	2½	3	3½	4	4½	5	6
Price.....each	10.00	12.00	15.00	18.00	20.00	23.00	25.00	30.00

Size.....inches	7	8	9	10	12	14	15	16
Price.....each	45.00	55.00	80.00	90.00	125.00	190.00	190.00	275.00

Gate Valves, Hub Ends, No. 474.

Size.....inches	3	4	6	8	10	12	14	16
Price.....each	15.00	20.00	30.00	55.00	90.00	125.00	190.00	275.00

Dimensions same as Valves on pages 166 and 170.

Template for drilling, see page 95.

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QUICK OPENING, ALL IRON GATE VALVES.

Screwed and Flanged.

QUICK OPENING GATE VALVE, WEDGE GATE.

FIG. 504.

No. 476.

LUNKENHEIMER'S HANDY GATE VALVE.

FIG. 505.

Gate Valves, Quick Opening, Screwed, No. 476.

Size.....inches	2½	3	3½	4	5	6
Price.....each	18.00	22.00	25.00	27.00	34.00	40.00

Size.....inches	7	8	9	10	12	.....
Price.....each	57.00	69.00	96.00	110.00	150.00	.....

Gate Valves, Quick Opening, Flanged, No. 477.

Size..... inches	2½	3	3½	4	5	6	7
Price.....each	18.00	22.00	25.00	27.00	34.00	40.00	57.00

Size.....inches	8	9	10	12	14	15	16
Price.....each	69.00	96.00	110.00	150.00	225.00	225.00	325.00

Lunkenheimer's Handy Gate Valves, Screwed.

Size.....inches	¾	1	1¼	1½	2	2½	3
Price.....each	3.40	4.00	4.50	6.00	7.00	12.00	15.00

Size.....inches	3½	4	4½	5	6	8	.....
Price.....each	18.00	21.00	25.00	30.00	35.00	65.00	.....

For dimensions see page 169

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

LUNKENHEIMER'S IRON BODY "CLIP" GATE VALVES.

Brass Mounted, Screwed and Flanged.

For 100 Pounds Working Pressure.

"CLIP" GATE VALVE, SCREWED.

FIG. 506.

"CLIP" GATE VALVE, FLANGED.

FIG. 507.

"Clip" Gate Valves, Screwed.

Size ..... inches	½	¾	1	1¼	1½	2	2½
Price..... each	1.50	1.90	2.50	3.50	5.00	7.50	12.00
End to End.....inches	$2\frac{1}{16}$	$2\frac{7}{32}$	$2\frac{1}{2}$	$2\frac{3}{4}$	3	$3\frac{7}{16}$	$4\frac{3}{16}$

Size ..... inches	3	3½	4	4½	5	6	.....
Price..... each	15.00	18.00	20.00	23.00	25.00	30.00	....
End to End.....inches	$4\frac{3}{8}$	$5\frac{1}{8}$	$5\frac{5}{8}$	$6\frac{9}{32}$	7	$7\frac{16}{32}$	.....

"Clip" Gate Valves, Flanged.

Size ..... inches	2	2½	3	3½	4	4½	5	6
Price .....each	8.50	13.50	16.90	20.30	22.50	26.00	28.30	33.80
Diameter of Flanges..in.	6	7	7½	8½	9	9½	10	11
Face to Face .....inches	4	$4\frac{15}{16}$	$5\frac{1}{16}$	$5\frac{3}{4}$	$6\frac{9}{16}$	$6\frac{15}{16}$	$7\frac{3}{4}$	$8\frac{3}{16}$

ALL IRON VALVES.

"Clip" Gate Valves, Screwed.

Size..... .. inches	½	¾	1	1¼	1½	2	2½
Price ....each	1.50	1.90	2.50	3.50	5.00	7.50	12.00

Size..... .. .. .inches	3	3½	4	4½	5	6	....
Price ....each	15.00	18.00	20.00	23.00	25.00	30.00	.....

"Clip" Gate Valves, Flanged.

Size .... inches	2	2½	3	3½	4	4½	5	6
Price ....each	8.50	13.50	16.90	20.30	22.50	26.00	28.30	33.80

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LUNKENHEIMER'S QUICK OPENING IRON BODY "CLIP" GATE VALVES.

Brass Mounted, Screwed and Flanged

For 100 Pounds Working Pressure.

QUICK OPENING "CLIP" GATE VALVE, SCREWED.

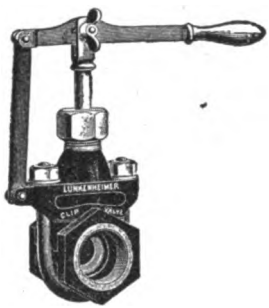

FIG. 508.

QUICK OPENING "CLIP" GATE VALVE, FLANGED.

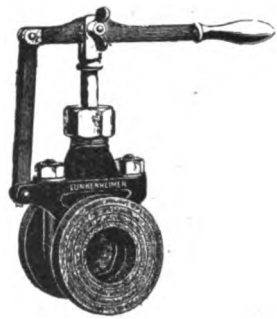

FIG. 509.

"Clip" Gate Valves, Quick Opening, Screwed.

Size.....inches	½	¾	1	1¼	1½	2	2½
Price .....each	1.50	1.90	2.50	3.50	5.00	7.50	12.00
End to End.....inches	2 1/16	2 7/32	2½	3¾	3	3 7/16	4 3/16

Size.....inches	3	3½	4	4½	5	6	.....
Price .....each	15.00	18.00	20.00	23.00	25.00	30.00	.....
End to End.....inches	4⅜	5⅛	5⅝	6 9/32	7	7 15/32	.....

"Clip" Gate Valves, Quick Opening, Flanged.

Size..... .... inches	2	2½	3	3½	4	4½	5	6
Price..... .....each	8.50	13.50	16.90	20.30	22.50	26.00	28.30	33.80
Diameter of Flanges.....inches	6	7	7½	8½	9	9½	10	11
Face to Face.....inches	4	4 15/16	5 1/16	5¾	6 9/16	6 15/16	7¾	8 3/16

ALL IRON VALVES.

"Clip" Gate Valves, Quick Opening, Screwed.

Size.....inches	½	¾	1	1¼	1½	2	2½
Price .....each	1.50	1.90	2.50	3.50	5.00	7.50	12.00

Size.....inches	3	3½	4	4½	5	6	.....
Price .....each	15.00	18.00	20.00	23.00	25.00	30.00	.....

"Clip" Gate Valves, Quick Opening, Flanged.

Size.. .....inches	2	2½	3	3½	4	4½	5	6
Price..... .....each	8.50	13.50	16.90	20.30	22.50	26.00	28.30	33.80

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

LUNKENHEIMER'S IRON BODY "VICTOR" GATE VALVES.

Brass Mounted, Screwed and Flanged.

For 175 Pounds Working Pressure.

"VICTOR" GATE VALVE, SCREWED.

FIG. 510.

"VICTOR GATE VALVE, FLANGED.

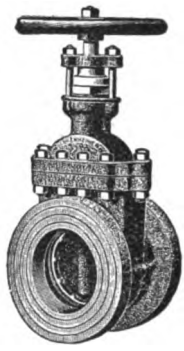

FIG. 511.

"Victor" Gate Valves, Screwed.

Size.....inches	2	2½	3	3½	4	4½	.5
Price.....each	9.00	11.00	14.00	22.00	29.00	34.00	42.00
End to End.. .....inches	4½	5 3/16	5 7/16	5 11/16	6	6 3/16	7 5/16

Size.....inches	6	7	8	9	10	12	.....
Price.....each	53.00	60.00	75.00	90.00	115.00	170.00	.....
End to End.....inches	7⅞	9¾	10⅜	11½	13	14½	.....

"Victor" Gate Valves, Flanged.

Size.....inches	2	2½	3	3½	4	4½	5
Price.....each	9.00	11.00	14.00	22.00	29.00	34.00	42.00
Diameter of Flanges.....inches	6	7	7½	8½	9	9½	10
Face to Face..... inches	5	5 11/16	6⅞	6½	7⅛	7½	8 5/16

Size.....inches	6	7	8	9	10	12	.....
Price.....each	53.00	60.00	75.00	90.00	115.00	170.00	.....
Diameter of Flanges.....inches	11	12½	13½	15	16	19	.....
Face to Face.....inches	9½	10⅞	11¾	12½	14¼	15	.....

ALL IRON VALVES.

"Victor" Gate Valves, Screwed and Flanged.

Size.....inches	2	2½	3	3½	4	4½	5
Price, Screwed or Flanged.each	9.00	11.00	14.00	22.00	29.00	34.00	42.00

Size.....inches	6	7	8	9	10	12	.....
Price, Screwed or Flanged.each	53.00	60.00	75.00	90.00	115.00	170.00	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

LUNKENHEIMER'S IRON BODY "VICTOR" GATE VALVES.

Brass Mounted, Screwed and Flanged, with Indicater.

For 175 Pounds Working Pressure.

"VICTOR" GATE VALVE, SCREWED.

FIG. 512.

"VICTOR" GATE VALVE FLANGED.

FIG. 513.

"Victor" Gate Valves, Screwed.

Size.....inches	2	2½	3	3½	4	4½	5
Price.....each	10.00	12.00	15.50	24.00	32.00	37.50	46.50
End to End.....inches	4½	5 3/16	5 7/16	5 11/16	6	6 3/16	7 5/16

Size.....inches	6	7	8	9	10	12	.....
Price.....each	58.50	66.00	82.50	98.50	125.00	180.00	.....
End to End.....inches	7⅞	9¾	10⅜	11¼	13	14¼	.....

"Victor" Gate Valves, Flanged.

Size.....inches	2	2½	3	3½	4	4½	5
Price.....each	10.00	12.00	15.50	24.00	32.00	37.50	46.50
Diameter of Flanges.....inches	6	7	7½	8½	9	9¼	10
Face to Face.....inches	5	5 11/16	6⅛	6½	7⅛	7½	8 1/16

Size.....inches	6	7	8	9	10	12	.....
Price.....each	58.50	66.00	82.50	98.50	125.00	180.00	.....
Diameter of Flanges.....inches	11	12½	13½	15	16	19	.....
Face to Face.....inches	9½	10⅞	11¾	12½	14¼	15	.....

ALL IRON VALVES.

"Victor" Gate Valves, Screwed and Flanged.

Size.....inches	2	2½	3	3½	4	4½	5
Price, Screwed or Flanged.each	10.00	12.00	15.50	24.00	32.00	37.50	46.50

Size.....inches	6	7	8	9	10	12	.....
Price, Screwed or Flanged.each	58.50	66.00	82.50	98.50	125.00	180.00	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

LUNKENHEIMER'S IRON BODY "VICTOR" GATE VALVES.

With Outside Screw and Yoke.

Brass Mounted, Screwed and Flanged.

For 175 Pounds Working Pressure.

"VICTOR" GATE VALVE, SCREWED.

FIG. 514.

"VICTOR" GATE VALVE, FLANGED.

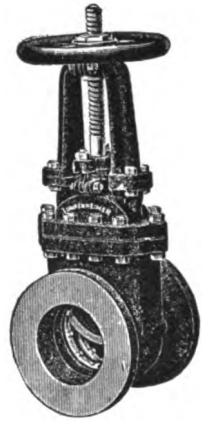

FIG. 515.

"Victor" Gate Valves, Screwed.

Size.....inches	2	2½	3	3½	4	4½	5
Price.....each	12.00	15.00	19.00	30.00	38.00	45.00	53.00
End to End.....inches	4½	5 3/16	5 7/16	5 11/16	6	6 3/16	7 5/16

Size.....inches	6	7	8	9	10	12	.....
Price.....each	66.00	75.00	94.00	112.00	142.00	210.00	.....
End to End.....inches	7⅞	9¾	10⅜	11¼	13	14¼	.....

"Victor" Gate Valves, Flanged.

Size.....inches	2	2½	3	3½	4	4½	5	6
Price.....each	12.00	15.00	19.00	30.00	38.00	45.00	53.00	66.00
Diameter of Flanges.....inches	6	7	7½	8½	9	9½	10	11
Face to Face.....inches	5	5 1/16	6⅛	6½	7⅛	7½	8 15/16	9½

Size.....inches	7	8	9	10	12	14	15	16
Price.....each	75.00	94.00	112.00	142.00	210.00	290.00	380.00	430.00
Diameter of Flanges.....inches	12½	13½	15	16	19	21	22½	23½
Face to Face.....inches	10⅞	11¾	12½	14¼	15	16½	16¾	18½

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LUNKENHEIMER'S IRON BODY "VICTOR" GATE VALVES.

Brass Mounted, Screwed and Flanged, with By-Pass.

For 175 Pounds Working Pressure.

"VICTOR" GATE VALVE, SCREWED.

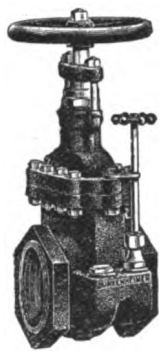

FIG. 516.

"VICTOR" GATE VALVE, FLANGED.

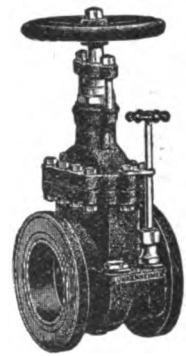

FIG. 517.

"Victor" Gate Valves, Screwed.

Size ..... inches	5	6	7	8	9	10	12
Price ..... each	46.50	58.50	66.00	82.50	98.50	126.50	187.00
End to End ..... inches	$7\frac{5}{16}$	$7\frac{7}{8}$	$9\frac{3}{4}$	$10\frac{3}{8}$	$11\frac{1}{2}$	13	$14\frac{1}{4}$

"Victor" Gate Valves, Flanged.

Size ..... inches	5	6	7	8	9	10	12
Price ..... each	46.50	58.50	66.00	82.50	98.50	126.50	187.00
Diameter of Flanges ..... inches	10	11	$12\frac{1}{2}$	$13\frac{1}{2}$	15	16	19
Face to Face ..... inches	$8\frac{15}{16}$	$9\frac{1}{2}$	$10\frac{7}{8}$	$11\frac{3}{4}$	$12\frac{1}{2}$	$14\frac{1}{4}$	15

ALL IRON VALVES.

"Victor" Gate Valves, Screwed and Flanged.

Size ..... inches	5	6	7	8	9	10	12
Price, Screwed or Flanged. each	46 50	58.50	66.00	82 50	98.50	126.50	187.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

LUNKENHEIMER'S IRON BODY "VICTOR" GATE VALVES.

With By-Pass and Outside Screw and Yoke.

Brass Mounted, Screwed and Flanged.

For 175 Pounds Working Pressure.

"VICTOR" GATE VALVE, SCREWED.

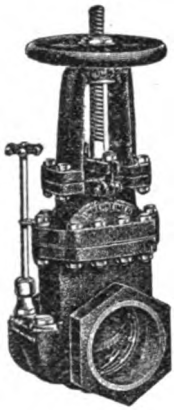

FIG. 518.

"VICTOR" GATE VALVE, FLANGED.

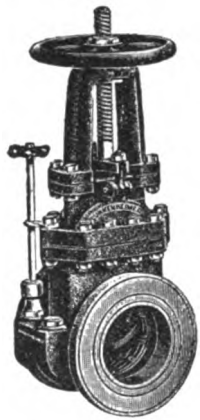

FIG. 519.

"Victor" Gate Valves, Screwed.

Size.....inches	5	6	7	8	9	10	12
Price.....each	58.00	72.00	81.00	100.00	120.00	154.00	227.00
End to End.....inches	$7\frac{5}{16}$	$7\frac{7}{8}$	$9\frac{3}{4}$	$10\frac{3}{8}$	$11\frac{1}{4}$	13	$14\frac{1}{4}$

"Victor" Gate Valves, Flanged.

Size... inches	5	6	7	8	9	10	12	14	15	16
Price. ...each	58.00	72.00	81.00	100.00	120.00	154.00	227.00	310.00	405.00	450.00
Diam. of Flanges, in	10	11	$12\frac{1}{2}$	$13\frac{1}{2}$	15	16	19	21	$22\frac{1}{4}$	$23\frac{1}{2}$
Face to Face, inches	$8\frac{1}{16}$	$9\frac{1}{2}$	$10\frac{7}{8}$	$11\frac{3}{4}$	$12\frac{1}{2}$	$14\frac{1}{4}$	15	$16\frac{1}{2}$	$16\frac{3}{4}$	$18\frac{1}{2}$

Add to Lists of Figures 515 and 519, for Heavy, or Tongued and Grooved Body Flanges per Valve

Size.. . . ..inches	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6
Price... .....per valve	2.70	3.00	3.30	3.70	4.10	4.70	5.30	6.70

Size .....inches	7	8	9	10	12	14	15	16
Price.....per valve	7.80	8.50	9.30	10.20	13.20	18.00	23.00	30.00

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LUNKENHEIMER'S QUICK OPENING, IRON BODY "VICTOR" GATE VALVES.

Brass Mounted Screwed and Flanged.

For 175 Pounds Working Pressure.

"VICTOR" GATE VALVE, SCREWED.

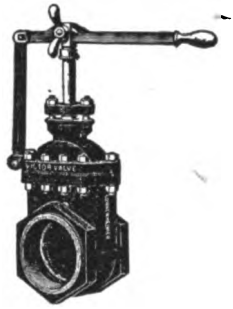

FIG. 520.

"VICTOR" GATE VALVE, FLANGED.

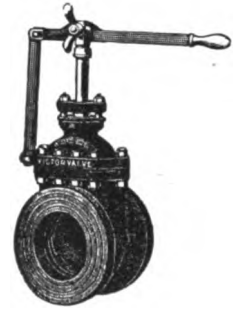

FIG. 521.

"Victor" Gate Valves, Screwed.

Size.....inches	2	2½	3	3½	4	4½	5
Price .....each	9.00	11.00	14.00	22.00	29.00	34.00	42.00
End to End.....inches	4½	5 3/16	5 7/16	5 11/16	6	6 3/16	7 5/16

Size .....inches	6	7	8	9	10	12	.....
Price .....each	53.00	60.00	75.00	90.00	115.00	170.00	.....
End to End..... ....inches	7⅞	9¾	10⅜	11½	13	14¼	.....

"Victor" Gate Valves, Flanged.

Size..... .....inches	2	2½	3	3½	4	4½	5
Price .....each	9.00	11.00	14.00	22.00	29.00	34.00	42.00
Diameter of Flanges .....inches	6	7	7½	8½	9	9¼	10
Face to Face.....inches	5	5 1/16	6⅛	6½	7⅛	7½	8 1/16

Size... .....inches	6	7	8	9	10	12	.....
Price ....each	53.00	60.00	75.00	90.00	115.00	170.00	.....
Diameter of Flanges.....inches	11	12½	13½	15	16	19	.....
Face to Face .....inches	9½	10⅞	11¾	12½	14¼	15	....

ALL IRON VALVES.

"Victor" Gate Valves, Screwed and Flanged.

Size..... .....inches	2	2½	3	3½	4	4½	5
Price, Screwed or Flanged..each	9.00	11.00	14.00	22.00	29.00	34.00	42.00

Size .....inches	6	7	8	9	10	12	.....
Price, Screwed or Flanged ..each	53.00	60.00	75.00	90.00	115.00	170.00	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

RENSSELAER IRON BODY GATE VALVES.

Brass Mounted, Screwed, Flanged and Hub Ends.

GATE VALVE, SCREWED.

FIG. 522.

GATE VALVE, FLANGED.

FIG. 523.

WATER GATE, HUB ENDS.

FIG. 524.

Gate Valves, Screwed.

Size.....inches	2	2½	3	3½	4	4½	5	6	7	8	10	12
Price.....each	7.00	10.00	12.50	16.50	17.50	23.00	25.00	30.00	38.00	45.00	63.50	81.00
End to End..in.	4⅞	5⅜	6⅜	7	8¼	9½	10¼	11⅝	11⅞	13	14	14¼

Gate Valves, Flanged.

Size.....inches	2	2½	3	3½	4	4½	5	6	7	8	10	12
Price.....each	7.25	10.75	13.00	17.00	18.00	23.50	25.00	30.00	37.00	43.50	63.00	78.00
Diameter of Flanges..in.	6	7	7½	8½	9	9½	10	11	12½	13½	16	19
Face to Face..... inches	5⅜	6¼	7⅞	8¼	9½	10¼	10¾	11⅛	11¼	11¾	12⅜	13

Water Gates.

Size .....inches	2	2½	3	3½	4	5	6	7	8	10	12
Price..... each	7.25	10.75	14.50	16.00	17.00	24.00	28.00	36.00	42.00	58.00	76.00
End to End of Pipe.....inches (when laid in Bell.)	2¾	.....	3¾	.....	4¾	5¾	6	6	6½	7¼	7½
Depth of Bell...inches	2⅛	.....	2¾	.....	3⅛	3½	4	4	4	4	4¼

Gate Valves, Quick Opening, Screwed, Flanged and Hub Ends.

Size .....inches	2	2½	3	3½	4	4½	5	6	8
Price, Screwed.....each	9.00	12.25	15.00	19.25	20.50	25.50	28.50	35.00	49.50
Price, Flanged.....each	9.25	13.00	15.50	19.75	21.00	26.00	28.00	34.00	48.00
Price, Hub Ends...each	9.25	13.00	17.00	18.75	20.50	.....	27.50	32.00	46.50

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BRASS STEAM COCKS.

TEE HANDLE.

FIG 525.

No. 256.

FLAT HEAD.

FIG. 526.

No. 252

SQUARE HEAD

FIG. 527.

No. 250.

Steam Cocks, Tee Handle, No. 256.

Size ..... inches	⅛	¼	⅜
Price ..... each	.85	.35	1.00
Price, with Check ..... each	.....	1.00	1.15

Steam Cocks, Flat and Square Head, Nos. 252 and 250.

Size ..... inches	¼	⅜	½	¾	1	1¼	1½
Price ..... each	.85	1.00	1.25	1.70	2.35	3.70	4.85

Size ..... inches	2	2½	3	3½	4	5	6
Price ..... each	7.30	14.50	22.50	38.50	50.00	80.00	120.00

Steam Cocks, Square Head with Check, No. 254.

Size ..... inches	½	¾	1	1¼	1½	2
Price ..... each	1.40	1.90	2.55	3.95	5 15	7.65

Size. ..... inches	2½	3	3½	4	5	6
Price ..... each	15.00	23.25	39.50	51.50	82.00	123.00

☞ 3½ to 6 inch Steam Cocks made to order only.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

BRASS STEAM COCKS.

Screwed and Flanged.

FLAT HEAD, MALE AND FEMALE.

FIG. 528.

No. 266.

SQUARE HEAD, THREE WAY.

FIG. 529.

No. 268.

SQUARE HEAD, FLANGED.

FIG. 530.

No. 265.

Steam Cocks, Male and Female, No. 266.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2
Price.....each	1.35	1.45	2.00	2.50	3.00	5.35	6.75	9.85

Steam Cocks, Three Way, No 268.

Size.....inches	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4
Price.....each	2.10	2.50	3.00	3.75	5.75	7.15	11.00	18.75	26.00	50.00	70.00

Steam Cocks, Flanged, No. 265.

Size.....inches	¾	1	1¼	1½	2	2½
Price.....each	5.50	7.30	9.70	11.75	18.00	27.50
Diameter of Flanges.....inches	3½	4	4½	5	6	7
Face to Face.....inches	2⅝	3⅛	3¼	4⅜	5	6

Size.....inches	3	3½	4	5	6	.....
Price.....each	43.00	62.00	84.00	150.00	275.00	.....
Diameter of Flanges.....inches	7½	8½	9	10	11	.....
Face to Face.....inches	7⅞	8⅞	9⅜	.....	.....	.....

Template for drilling, see page 95.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

IRON COCKS.

FIG. 531.

No. 320.

All Iron Cocks, No. 320.

Size.....inches	½	¾	1	1¼	1½	2	2½
Price .....each	.90	1.05	1.30	1.60	1.95	2.70	4.40
End to End .. ..inches	2¼	2¾	3⅜	4	4⅝	5¼	6⅛

Size.....inches	3	3½	4	5	6	8	.....
Price .....each	6.75	12.00	15.50	32 00	45.00	100.00	.....
End to End .....inches	7¾	8⅝	10	12	14	.....	.....

Iron Cocks, Brass Washer, No. 322.

Size.....inches	½	¾	1	1¼	1½	2	2½
Price .....each	1.00	1.20	1.55	1.95	2.35	3.20	5.15

Size.....inches	3	3½	4	5	6	8	.....
Price.....each	7.75	14.00	19.00	38.00	53.00	110.00	.....

Iron Cocks, Brass Plug, No. 324.

Size.....inches	½	¾	1	1¼	1½	2	2½
Price .....each	1.30	1.60	1.90	2.65	3.75	5.25	8.75

Size.....inches	3	3½	4	5	6	8	.....
Price. .....each	13.00	27.50	36.50	67.00	94.00	200.00	.....

☞Flat Head, ½ inch to 2 inch, and Square Head, 2½ inch to 8 inch, will always be furnished, unless otherwise ordered.

These Cocks will be furnished with check when so ordered, sizes ½ inch to 2 inch 15 cents extra, net; sizes 2½ inch and larger 25 cents extra, net.

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IRON COCKS.

EXTRA HEAVY.
FLAT HEAD.

FIG. 532.
No. 334.

THREE WAY,
SQUARE HEAD.

FIG. 533.
No. 326.

Extra Heavy All Iron Cocks, No. 334.

Size.....inches	1	1¼	1½	2	2½	3	4
Price.....each	1.75	2.10	2.80	3.65	6.50	9.00	22.50
End to End.....inches	4	4¾	5⅛	6½	7½	9	11

Extra Heavy Iron Cocks, Brass Washer, No. 336.

Size.....inches	1	1¼	1½	2	2½	3	4
Price.....each	2.00	2.45	3.20	4.15	7.25	10.00	26.00
End to End.....inches	4	4¾	5⅛	6½	7½	9	11

All Iron Three Way Cocks, No. 326.

Size.....inches	¾	1	1¼	1½	2	2½	3	3½	4	5	6
Price.....each	1.65	1.80	2.05	2.65	3.65	5.35	7.50	14.00	19.00	36.50	52.00

Iron Three Way Cocks, Brass Washer, No. 328.

Size.....inches	¾	1	1¼	1½	2	2½	3	3½	4	5	6
Price.....each	1.80	2.05	2.40	3.05	4.15	6.10	8.50	16.00	22.50	42.50	60.00

Iron Three Way Cocks, Brass Plug, No. 330.

Size..... inches	¾	1	1¼	1½	2	2½	3	3½	4	5	6
Price.....each	2.20	2.40	3.10	4.50	6.25	9.75	13.75	30.00	40.00	71.50	100.00

Three Way Cocks will be furnished with check when so ordered, sizes ½ inch to 2 inch 15 cents extra, net; sizes 2½ inch and larger 25 cents extra, net.

Flanged End Three Way Cocks will be furnished to order. Prices on application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

IRON COCKS.

Flanged.

FIG. 534.

No. 325.

All Iron Cocks, No. 325.

Size.....inches	1	1¼	1½	2	2½	3	3½	4	5	6	8
Price.....each	2.25	2.75	3.25	4.25	6.25	9.50	15.00	19.00	36.00	50.00	107.00
Diam. of Flanges, in.	4	4¼	5	6	7	7½	8½	9	10	11	13½
Face to Face ....in.	4½	5¼	5⅝	6⅜	8⅝	9⅝	10¾	12⅛	13¼	13⅞	17

Iron Cocks, Brass Washer, No. 327.

Size.....inches	1	1¼	1½	2	2½	3	3½	4	5	6	8
Price.....each	2.50	3.10	3.65	4.75	7.00	10.50	17.00	22.50	42.00	58.00	117.00
Diam. of Flanges . in.	4	4¼	5	6	7	7½	8½	9	10	11	13½
Face to Face.....in.	4½	5¼	5⅝	6⅜	8⅝	9⅝	10¾	12⅛	13¼	13⅞	17

Iron Cocks, Brass Plug, No. 329.

Size.....inches	1	1¼	1½	2	2½	3	3½	4	5	6	8
Price.....each	3.00	3.75	5.00	7.00	10.50	15.75	30.00	40.00	70.00	100.00	210.00
Diam. of Flanges..in.	4	4¼	5	6	7	7½	8½	9	10	11	13½
Face to Face..in.	4½	5¼	5⅝	6⅜	8⅝	9⅝	10¾	12⅛	13¼	13⅞	17

These Cocks are made to order only.

Flat Head, 1 to 2 inch, and Square Head, 2½ to 8 inch, will always be furnished, unless otherwise ordered.

Template for drilling, see page 95.

These Cocks will be furnished with check when so ordered, sizes ½ inch to 2 inch 15 cents extra, net; sizes 2½ inch and larger 25 cents extra, net.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

PRATT AND CADY'S ASBESTOS PACKED BRASS AND IRON COCKS.

SCREWED.

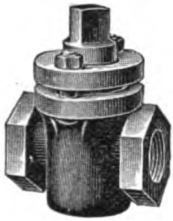

FIG. 535.

SCREWED AND FLANGED.

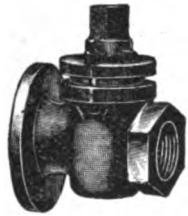

FIG. 536.

FLANGED.

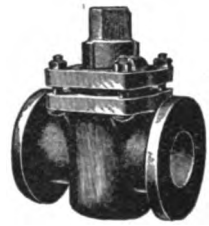

FIG. 537.

Brass and Iron Cocks, Screwed.

Size ..... inches	⅛	¼	⅜	½	¾	1	1¼	1½
Price, Brass.....each	.....	3.35	3.35	3.35	4.20	5.60	8.00	10.35
Price, Iron.....each	1.30	1.30	1.45	1.60	2.10	2.50	3.50	4.75
End to End.....inches	2⅝	2⅝	2⅝	3	3⅜	4	4⅝	5⅛

Size ..... inches	2	2½	3	3½	4	5	6	.....
Price, Brass.....each	16.00	26.50	37.50	50.50	64.00	.....	.....	.....
Price, Iron.....each	7.00	12.00	18.00	27.00	30.00	45.00	60.00	.....
End to End.....inches	6	7	8½	8¾	9½	11½	14¾	.....

Brass and Iron Three Way Cocks, Screwed.

Size ...inches	½	¾	1	1¼	1½	2	2½	3	3½	4	5
Price, Brass, ea.	4.50	5.75	7.50	10.75	14.00	21.50	36.00	50.50	.....	.....	.....
Price, Iron ..ea.	2.85	3.15	4.40	5.95	8.75	15.00	22.50	33.75	36.50	56.25	75.00

Brass and Iron Cocks, Screwed and Flanged.

Size .....inches	1	1¼	1½	2	2½	3	3½	4	5	6
Price, Brass..each	8.00	10.50	13.00	21.00	33.00	47.00	.....	.....	.....	.....
Price, Iron...each	2.50	3.50	4.75	7.00	12.00	18.00	27.00	30.00	45.00	60.00
Diam. of Flanges...inches	4	4½	5	6	7	7½	8½	9	10	11
End to Face..inches	4¾	5¼	5½	6½	7⅝	8⅝	9½	10½	12⅝	15⅜

Brass and Iron Cocks, Flanged.

Size .....inches	1	1¼	1½	2	2½	3	3½	4	5	6
Price, Brass..each	10.50	12.50	14.50	26.00	38.00	49.00	69.50	90.00	120 00	.....
Price, Iron...each	2.50	3.50	4.75	7.00	12.00	18.00	27.00	30.00	45.00	60.00
Diam. of Flanges...inches	4	4½	5	6	7	7½	8½	9	10	11
End to Face...inches	5½	5¾	5⅞	7⅛	8¼	9¼	10¼	11½	13¾	16

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KEYSTONE VALVES OR BLOW-OFF COCKS.

STRAIGHT-WAY.

FIG. 538.

THREE-WAY.

FIG. 539.

SECTIONAL.

FIG. 540.

Straight-Way Valves, Screwed.

Size ..... inches	½	¾	1	1¼	1½	2
Price, for Pressure to 200 Pounds. each	1.65	2.10	3.00	4.50	6.30	10.95
Price, for Pressure to 500 Pounds. each	3.00	4.50	6.15	7.80	10.50	15.00
Price, for Pressure to 1500 Pounds. each	7.35	10.00	16.20	21.30	29.85	47.70

Size ..... inches	2½	3	4	5	6	
Price, for Pressure to 200 Pounds. each	18.00	30.00	.....	.....	.....	.....
Price, for Pressure to 500 Pounds. each	30.00	48.00	75.00	90.00	120.00	.....
Price, for Pressure to 1500 Pounds. each	76.20	121.80	.....	.....	.....	.....

Three-Way Valves, Screwed.

Size ..... inches	½	¾	1	1¼	1½	2	2½	3
Price, for Pressure to 200 Pounds. ea.	2.40	4.65	6.00	8.10	10.30	16.20	27.00	37.80
Price, for Pressure to 600 Pounds. ea.	5.10	8.55	11.40	14.70	16.95	22.50	33.75	56.25

Four-Way Valves, Screwed.

Size ..... inches	½	¾	1	1¼	1½	2	2½
Price, for Pressure to 600 Pounds ....each	13.50	16.95	23.55	28.20	33 75	42.75	67.50

Locomotive Blow-Off Valves, Male and Female.

Size ..... inches	1¼	1½	2
Price ..... each	4.50	6.00	9.00

Prices for Valves suitable for higher pressure or larger sizes on application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

GENERATOR VALVES.

For Gasoline Engines.

ANGLE.

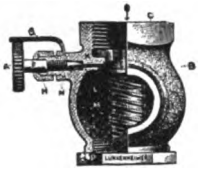

FIG. 541.

VERTICAL.

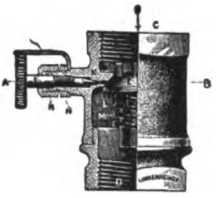

FIG. 542.

Size.....inches	½	¾	1	1¼	1½	2	2½	3
Price, Angle or Vertical.....each	2.60	3.30	4.00	4.80	6.00	7.50	12.50	18.00
Diameter, Cylinder to use on..... ...inches	2	3½	4½	5½	7	8	10.12	14

The above proportions are based on a piston travel of not more than 600 feet per minute.

For higher speeds than this, the valve should be the next size larger than shown above.

GAS ENGINE THROTTLE COCKS.

Graduated Dial.

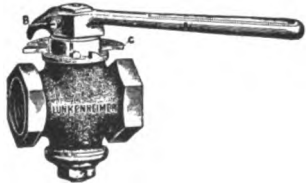

FIG. 543.

Size..... inches	⅜	½	¾	1	1¼	1½	2	2½
Price, Finished Lever and Dial, each	1.70	1.90	2.30	3.00	4.50	6.20	10.00	22.00
Price, Finished all over.....each	2.40	2.70	3.20	4.20	6.00	8.20	12.50	25.00

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BRASS LOW PRESSURE SAFETY VALVES.

LOW PRESSURE SAFETY VALVE.

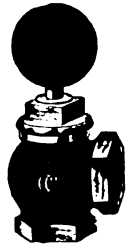

FIG. 544.

No. 36.

LOW PRESSURE POP SAFETY VALVE.

FIG. 545

No. 38.

Low Pressure Safety Valves, No. 36.

Size .....inches	¾	1	1¼	1½	2
Price.....each	2.60	3.30	4.50	6.35	8.65

Angle Safety Valves ½ to 2 inch same list as above.

Low Pressure Pop Safety Valves, No. 38.

Size .....inches	¾	1	1¼	1½	2	2½
Price..... .....each	7.00	8.00	9.00	10.00	15.00	40.00

No. 38 is a special "Pop" Safety Valve designed for Low Pressure Steam Heating Boilers and Cylinders, and is recommended for pressures *not exceeding 20 pounds.*

Standard Brass Safety Valves.

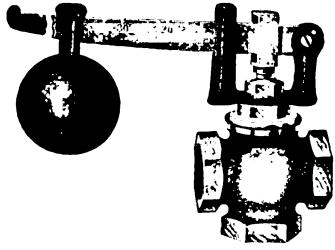

FIG. 546

No. 40.

Size .....inches	¼	⅜	½	¾	⅞	1¼	1½	2	2½	3
Price..... .....each	2.20	2.50	3.25	3.90	4.70	7.15	9.00	12.50	22.50	33.50
Price, Composition Disc.....each	....	..	4.12	4.95	5.50	8.25	10.15	15.40	.....	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STANDARD IRON BODY SAFETY VALVES.

Brass Mounted.

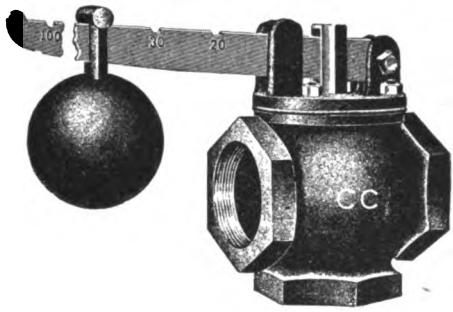

FIG. 547.

No. 376.

Safety Valves, Screwed, No. 376.

Size	inches	1¼	1½	2	2½	3	3½
Price	each	5.00	5.80	7.80	13.25	17.25	23.00
End to End	inches	4	4⅝	5¾	6⅝	7½	8¼
Center to Inlet	inches	2⅛	2½	2⅞	3 5/16	3¾	4⅛

Size	inches	4	4½	5	6	7	8
Price	each	28.75	34.50	41.50	57.75	93.50	132.00
End to End	inches	9⅜	10¼	11¼	12½	14	16
Center to Inlet	inches	4 1/16	5⅛	5⅝	6¼	7	8

Safety Valves, Flanged, No. 377.

Size	inches	2	2½	3	3½	4	4½	5	6	7	8
Price	each	10.25	16.00	21.50	27.50	34.00	40.00	48.00	65.00	100.00	140.00
Diam. of Flanges	inches	6	7	7½	8½	9	9½	10	11	12½	13½
Face to Face,	inches	8	8½	9½	10½	11	12	13	14	16	17
Center to Inlet	inches	4	4¼	4¾	5¼	5½	6	6½	7	8	8½

Safety Valves, Composition Disc, Screwed and Flanged.

Size	inches	2	2½	3	3½	4	5	6
Price, Screwed	each	10.25	16.75	22.00	31.00	38.00	55.00	73.00
Price, Flanged	each	12.25	19.00	25.50	34.00	41.50	62.00	80.00

The 1¼ to 2 inch have brass caps; other sizes have iron caps.

Template for drilling, see page 95.

Angle Safety Valves 2 to 8 inch Screwed or Flanged same lists as above.

Lever Safety Valves are allowed 1 square inch of valve area to 2 square feet of grate surface.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CRANE'S STANDARD BRASS POP SAFETY VALVES.

Self Adjusting.

TOP OUTLET.

FIG. 548.

No. 422.

ANGLE OUTLET.

FIG. 549.

No. 424

Pop Safety Valves, Nos. 422 and 424.

Size.....inches	¾	1	1¼	1½	2	2½
Price Top Outlet...each	8.00	10.00	13.00	17.00	25.00	.....
Price, Angle Outlet..each	8.00	10.00	13.00	17.00	25.00	45.00
For Boilers...H. P.	3 to 6	3 to 10	10 to 20	20 to 30	30 to 40	40 to 75

Lunkenheimer's Brass Pop Safety Valves.

FIG. 550.

FIG. 551.

Size.....inches	⅜	½	¾	1	1¼	1½	2	2½	3
Price, Top Outlet.....each	5.50	6.00	6.50	7.50	9.00	11.50	18.00	28.00	38.00
Price, Angle Outlet....each	6.00	6.50	7.00	8.20	9.80	12.40	19.50	30.00	41.00

The simplest and most reliable way in which to ascertain the size of valve required, is to find the number of square feet of grate surface of boiler. Divide this amount by three and the quotient will be the number of square inches of valve area necessary.

In ordering state pressure you wish Valves set at.

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BRASS POP SAFETY VALVES.

Fitted with Richardson's Adjustable Screw Ring.

TOP OUTLET.

FIG. 552.

SWINGING SIDE OUTLET.

FIG. 553.

Pop Safety Valves, Top Outlet.

Size .....inches	¾	¾	1	1	1¼	1¼	1½	1½	2	2½	3
Size, Steam Connection, inches	*¾	1	1	1¼	1¼	1¼	1½	2	2	*2½	*3
Price .....each	8.00	8.00	10.00	10.00	15.00	15.00	20.00	20.00	30.00	40.00	60.00
For Boilers.....H. P.	8	10	12	15	18	20	20	25	30	40	60to75

Sizes marked * have female connection; 2½ and 3 inch valves have straight levers.

Pop Safety Valves, Swinging Side Outlet.

Size.....inches	¾	1	1¼	1½	2
Price.....each	12.00	15.00	20.00	25.00	30.00

SIDE OUTLET.

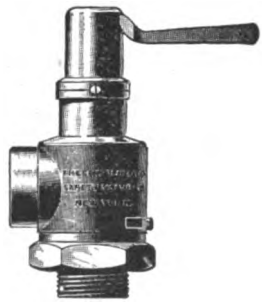

FIG. 554.

Pop Safety Valves, Side Outlet.

Size .....inches	1	1¼	1½	2
Price.....each	13.00	18.00	23.00	30.00

In ordering state pressure you wish Valves set at.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

IRON BODY POP SAFETY VALVES.

Brass Seats.

CRANE'S.

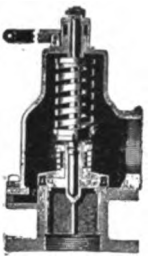

FIG. 555.

LUNKENHEIMER'S.

FIG. 556.

No. 421.

Crane's Pop Safety Valves, Brass Seats, No. 421.

Size. Inches.	PRICE. Each.	Center of Valve to End of Outlet. Inches.	Size of Flanged Outlets. Inches.	Total Height. Inches.	Center of Outlet to Bottom of Flange. Inches.	Diam. of Flange Bot'm Inches.	Center Valve to end of Lever. Inches.	Larg'st Diam. of Valve. Inches.	For Boilers. H. P.
2½	45.00	3¾	....	15¼	6⅜	7½	13	8⅞	40 to 75
3	60.00	4⅛	.....	17	7 5/16	8¼	13	9⅝	75 to 100
3½	75.00	4⅜	.....	18¾	7½	9	14	10⅝	100 to 125
4	90.00	5⅝	.....	20¾	8½	10	15⅛	12⅜	125 to 150
4½	120.00	6⅜	9¼	21	10¼	10½	15⅛	13¼	150 to 175
5	125.00	6⅜	9¼	21⅜	10¾	11	15⅛	13¼	175 to 200
6	175.00	7⅛	11	23⅜	10¼	12½	18½	14¾	300

These Valves are made both screwed and flanged on base connection.

Sizes 2½ to 4 inch are made with screwed side outlets; 4½ to 6 inch flanged side outlets.

☞Crane's Valves furnished with Nickel Seat. Same list as above.

Lunkenheimer's Pop Safety Valves, Brass Seats, Screwed or Flanged.

Size. Inches.	PRICE. Each.	Center to Inlet or Outl't Screwed Inches.	Center to Outlet Flanged. Inches.	Diam. of Inlet Flange. Inches.	Diam. of Outlet Flange. Inches.	Center of Outlet to Top. Inches.	Center to Outside Edge of Vertical Lever. Inches.	Center to End of Top Lever Inches.
2	22.00	3	4	6	7	9⅞	3⅞	8¾
2½	32.00	3⅜	4½	7	7½	12	4⅞	10⅜
3	40.00	3⅞	5⅛	7½	8½	11¾	4⅞	10⅜
3½	56.00	4⅜	6	8½	9	13⅛	6	11⅜
4	72.00	4¾	6 7/16	9	9¼	14⅛	6¾	12⅜
4½	84.00	5 5/16	6¾	9¼	10	14⅝	6⅞	13⅜
5	100.00	6 1/16	7⅛	10	11	16⅞	6¾	14¼
6	120.00	7 5/16	8⅝	11	12½	18½	8⅛	15

The simplest and most reliable way in which to ascertain the size of valve required is to find the number of square feet of grate surface of boiler, divide this amount by three and the quotient will be the number of square inches of valve area necessary.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

LUNKENHEIMER'S PLAIN PATTERN, IRON BODY POP SAFETY VALVES.

Brass Mounted.

SCREWED.

FIG. 557.

FLANGED.

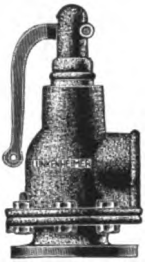

FIG. 558.

Size. Inches.	Price. Each.	Center to Face of Inlet, Screwed Inches.	Center Face of Outlet. Inches.	Diam. of Flanges. Inches.	Diam. of Body and Cap Flanges. Inches.	Center to Face of Flanges. Inches.	Center to Top Inches.	Center to Outside Edge of Vertical Lever. Inches.	For Boilers. H. P.
2	22.00	$4\frac{11}{16}$	$3\frac{3}{16}$	6	$6\frac{5}{16}$	$4\frac{3}{4}$	$8\frac{13}{16}$	$3\frac{1}{2}$	50
$2\frac{1}{2}$	32.00	$5\frac{3}{8}$	$3\frac{5}{8}$	7	$7\frac{5}{16}$	$5\frac{1}{8}$	$10\frac{9}{16}$	$4\frac{1}{8}$	70
3	40.00	$5\frac{1}{2}$	$3\frac{15}{16}$	$7\frac{1}{2}$	$7\frac{7}{8}$	$5\frac{1}{4}$	$10\frac{3}{4}$	$4\frac{1}{2}$	100
$3\frac{1}{2}$	56.00	$5\frac{13}{16}$	$4\frac{11}{16}$	$8\frac{1}{2}$	$9\frac{3}{8}$	6	$12\frac{1}{8}$	$4\frac{7}{8}$	125
4	72.00	$6\frac{3}{8}$	$5\frac{1}{4}$	9	$10\frac{1}{2}$	$6\frac{5}{8}$	$13\frac{3}{8}$	$5\frac{5}{8}$	150
$4\frac{1}{2}$	84.00	$6\frac{7}{8}$	$5\frac{3}{4}$	$9\frac{1}{2}$	$11\frac{7}{16}$	7	$13\frac{3}{4}$	$6\frac{1}{4}$	175
5	100.00	$7\frac{3}{16}$	$6\frac{3}{16}$	10	$12\frac{3}{8}$	$7\frac{3}{8}$	$15\frac{1}{4}$	7	200
6	120.00	$8\frac{3}{4}$	$7\frac{5}{16}$	11	$14\frac{5}{8}$	$8\frac{15}{16}$	$17\frac{1}{8}$	$7\frac{5}{8}$	300

All Valves have lock attachment. In ordering, state pressure at which valve is to be set to blow off. Valves can be furnished with nickel seats when desired

The simplest and most reliable way in which to ascertain the size of valve required is to find the number of square feet of grate surface of boiler, divide this amount by three and the quotient will be the number of square inches of valve area necessary.

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IRON BODY, POP SAFETY VALVES,

Brass and Nickel Seats

Fitted with Richardson's Adjustable Screw Ring.

TOP OUTLET.

FIG. 559

SECTIONAL.

FIG. 560.

Pop Safety Valves, Brass Seats.

Size. Inches.	Price. Each.	Diameter of Base Flange. Inches.	Diameter of Side Outlet. Inches.	Center of Outlet to Bottom of Flange. Inches.	Total Height. Inches.	Center of Valve to End of Outlet. Inches.	Largest Diam. of Valve or Space Occupi'd Inches.	For Boilers. H. P.
2	35.00	Screwed.	Screwed	4 7/8	13 3/4	3 1/4	6 1/2	35 to 60
2 1/2	45.00	9 1/8 Flanged	"	7 3/8	17 1/4	3 3/4	9 3/8	60 to 75
3	60.00	9 1/8 "	"	7 7/8	18	4 1/4	9 3/8	75 to 100
3 1/2	75.00	10 1/2 "	"	8 1/2	21 1/8	4 3/4	10 3/8	100 to 125
4	90.00	11 3/8 "	"	9	21 1/8	5 3/8	11 3/8	125 to 150
4 1/2	95.00	12 "	9 1/2 Flanged	9 3/4	21 1/8	5 5/8	13 1/2	150 to 175
5	100.00	13 1/8 "	9 1/8 "	10 1/4	21 1/8	6 1/4	16 1/2	175 to 200
5 1/2	125.00	13 1/8 "	10 1/2 "	10 3/4	24	6 7/8	17	200 to 275
6	150.00	13 1/8 "	10 1/8 "	10 1/4	24 3/8	6 7/8	17	275 to 300

Pop Safety Valves, Nickel Seats.

Size. Inches.	Price, Each.	Diameter of Base Flange. Inches.	Diameter of Side Outlet. Inches.	Distance from Base Flange to Centr of Side Outlet. Inches.	Total Height of Valve includ'g Lock-up Cap. Inches.	Distance from Center of Valve to Outside of Outlet Inches.	Largest Diametr of Valve or Space Occupied Inches.	For Boilers. H. P.
1	15.00	Screwed	1 1/4 Screwed	4	9 7/8	2 3/16	4 1/2	8 to 10
1 1/4	20.00	"	1 1/2 "	4 1/16	11 3/8	2 3/8	5	10 to 15
1 1/2	30.00	"	2 "	5 1/2	12	2 7/8	6 1/4	20 to 30
2	40.00	"	2 1/2 "	6	14 1/4	3 1/4	7 3/8	35 to 50
2 1/2	55.00	9 1/8 Flanged	3 "	7 3/4	17 1/4	4 1/4	9 1/4	60 to 75
3	75.00	9 1/8 "	3 1/2 "	8 1/2	18 1/2	5	11 1/2	75 to 100
3 1/2	87.00	10 1/4 "	4 "	9 1/8	21	5 5/8	12 3/4	100 to 125
4	100.00	11 3/8 "	4 "	9 1/4	21 3/4	6	14	125 to 150
4 1/2	125.00	12 1/8 "	8 1/2 Flanged	10	21 1/8	6	13 1/2	150 to 175
5	150.00	13 1/8 "	9 1/8 "	10	21 1/8	6 1/4	16 1/2	175 to 200
5 1/2	165.00	13 1/8 "	10 1/2 "	11	24	6 7/8	17	200 to 275
6	175.00	13 1/8 "	10 1/8 "	11 3/8	24 3/8	6 7/8	17	275 to 300

Nickel Seat Valves furnished with base outlet, sizes 2 to 6 inch, same lists as above.

All flanged Valves, up to and including four-inch, have their inlets and outlets screwed regular pipe sizes of same diameter as valves; above four-inch, excepting six-inch size, inlets are screwed pipe sizes, one-half inch smaller than diameter of valve; six-inch size has inlet tapped six inches straight, eight threads to the inch. All flanged bases are threaded for convenience in testing and setting the valves under steam pressure at factory only.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CRANE'S WATER RELIEF VALVES.

Brass and Iron Body.

BRASS.

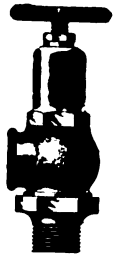

FIG. 561.

No. 426.

IRON BODY.

FIG. 562.

No. 425.

Brass Water Relief Valves, No. 426.

Size.....inches	¾	1	1¼	1½	2	2½
Price.....each	8.00	10.00	13.00	17.00	25.00	45.00
Largest Diameter of Valves.....inches	2	2¼	2¾	3 3/16	4	4¾
Height.....inches	6	7⅛	8½	9½	11½	12

Iron Body Water Relief Valves, No. 425.

Size.....inches	2½	3	3½	4	4½	5	6
Price.....each	45.00	60.00	75.00	90.00	120.00	125.00	175.00
Largest Diameter of Valves...inches	8⅞	9⅝	10⅝	12⅜	13¼	13½	14¾
Height.....inches	15¼	17	18¾	20⅜	21	21⅜	23¾
Center to End of Outlet.....inches	3¾	4⅜	4¾	5⅝	6⅜	6⅜	7⅛
Diameter of Bottom Flange, inches	7½	8½	9	10	10½	11	12½
Center of Outlet to Bottom Flange..inches	6⅜	7 5/16	7¾	8½	10½	10¾	10¾
Diameter of Outlet Flange..inches	Sizes 2½ to 4 in. inclusive have Screwed Outlet. Sizes 4½ to 6 in. inclusive have Flanged Outlet.				9¼	9¼	11

Made for wrench adjustment in place of hand wheel when so ordered.

The 2½ inch Brass Valve has female base.

In ordering state highest working pressure.

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STANDARD BRASS EXTENSION JOINTS.

Screwed.

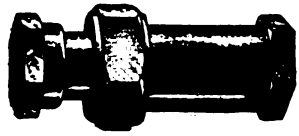

FIG. 563.

No. 404.

Expansion Joints, Standard Traverse, No. 404.

Size .....inches	½	¾	1	1¼	1½	2	2½	3
Price .....each	1.50	2.20	2.75	4.00	5.00	8.00	17.00	24.00
Traverse .....inches	2	2¼	2½	2¼	2¼	2½	2½	2¾

Expansion Joints, Special Traverse, No. 406.

Traverse.	Size.....inches	¾	1	1¼	1½	2	2½
6 inches.....	Price .....each	8.25	9.00	10.00	11.50	13.50	24.00
8 inches.....	Price .....each	9.00	10.00	11.25	13.00	15.50	27.00
10 inches.....	Price .....each	9.75	11.00	12.50	14.50	17.50	30.00
12 inches.....	Price .....each	10.50	12.00	13.75	16.00	19.50	33.00

The expansion will average about 1 inch in 50 feet of pipe.

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STANDARD IRON BODY EXPANSION JOINTS.

Brass Sleeve, Screwed.

FIG. 564.

No. 398.

Expansion Joints, Standard Traverse, No. 398.

Size.....inches	2	2½	3	3½	4	5
Price.....each	7.00	8.00	10.00	14.00	18.00	38.00
Traverse.....inches	2½	2½	2¾	3	3½	4
Size.....inches	6	7	8	9	10	12
Price .....each	45.00	70.00	100.00	110.00	160.00	225.00
Traverse.....inches	5	6	7	7	7	8

Expansion Joints, Special Traverse, No. 400.

Traverse.	Size.....inches	2	2½	3	3½	4	5	6	7	8
6 in..	Price..each	11.00	13.00	17.50	25.00	30.00	45.00	55.00	.....	.....
10 in...	Price..each	16.00	19.00	25.00	35.00	42.00	62.00	80.00	100.00	140.00
12 in...	Price..each	18.50	22.00	29.00	40.00	48.00	70.00	92.50	115.00	160.00
14 in...	Price..each	21.00	25.00	33.00	45.00	54.00	78.00	.....	.....	.....
16 in...	Price..each	23.50	28.00	37.00	50.00	60.00	86.00	.....	.....	.....
18 in...	Price..each	26.00	31.00	41.00	55.00	66.00	.....	.....	.....	.....

The expansion will average about 1 inch in 50 feet of pipe.

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STANDARD IRON BODY EXPANSION JOINTS.

Brass Sleeve, Flanged.

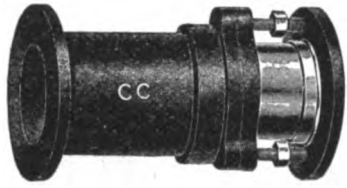

FIG. 565.

No. 401.

Expansion Joints, Standard Traverse, No. 401.

Size.....inches	2	2½	3	3½	4	5	6	7
Price.....each	15.00	16.00	18.50	25.00	30.00	48.00	55.00	80.00
Traverse.....inches	2½	2½	2¾	3	3½	4	5	6
Diameter of Flanges.....inches	6	7	7½	8½	9	10	11	12½

Size.....inches	8	9	10	12	14	15	16	.....
Price.....each	110.00	120.00	175.00	250.00	500.00	500.00	600.00	.....
Traverse.....inches	7	7	7	8	10	10	10	.....
Diameter of Flanges...inches	13½	15	16	19	21	22½	23½	.....

Expansion Joints, Special Traverse, No. 403.

Traverse.	Size.....inches	2	2½	3	3½	4	5	6	7	8
6 inches	Price.....each	18.00	20.00	25.00	35.00	40.00	55.00	65.00	.....	.....
10 inches	Price.....each	23.00	26.00	32.50	45.00	52.00	72.00	90.00	112.00	150.00
12 inches	Price.....each	25.50	29.00	36.50	50.00	58.00	80.00	102.50	127.00	170.00
14 inches	Price.....each	28.00	32.00	40.50	55.00	64.00	88.00	.....	.....	.....
16 inches	Price.....each	30.50	35.00	44.50	60.00	70.00	96.00	.....	.....	.....
18 inches	Price.....each	33.00	38.00	48.50	65.00	76.00	.....	.....	.....	.....

The expansion will average about 1 inch in 50 feet of pipe

Template for drilling, see page 95

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EXTRA HEAVY MALLEABLE IRON ELBOWS AND TEES.

For 250 Pounds Working Pressure.

Tested to 800 Pounds Pressure Per Square Inch

ELBOW.

FIG. 566.

TEE.

FIG. 567.

Extra Heavy Malleable Iron Elbows.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2
Price.....each	.20	.25	.30	.35	.40	.55	.70	.90

Size.....inches	2½	3	3½	4	5	6	.....	.....
Price.....each	1.50	2.40	3.25	4.25	6.50	9.50	.....	.....

Extra Heavy Malleable Iron Tees.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2
Price.....each	.30	.40	.45	.50	.60	.80	1.05	1.35

Size.....inches	2½	3	3½	4	5	6	.....	.....
Price.....each	2.25	3.60	5.00	6.50	9.75	14.25	.....	.....

Reducing sizes made to order, prices according to quantity ordered.

FIG. 568.

CRANE UNIONS.

Malleable Iron.

EXTRA HEAVY. METALLIC SEAT.

For 250 Pounds Working Pressure.

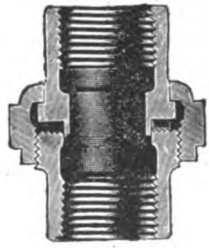

FIG. 569.

Tested to 800 Pounds Pressure Per Square Inch.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	.20	.24	.28	.35	.40	.56	.80	.95	2.00	2.75
Price, Galv.....each	.24	.28	.35	.46	.55	.78	1.12	1.35	2.90	3.75

The Crane Union is extra heavy, and has a metallic gasket. The face of the Union, being corrugated, holds the metallic gasket in place. This improvement makes the blowing-out of the gasket absolutely impossible. Should it at any time be necessary to replace the gasket, it can be readily done.

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EXTRA HEAVY CAST IRON FITTINGS.

For 250 Pounds Working Pressure.

Tested to 800 Pounds Pressure Per Square Inch.

ELBOW.

FIG. 570.

TEE.

FIG. 571.

Size.....inches	½	¾	1	1¼	1½	2	2½	3	3½
Price, Elbows.....each	.25	.30	.35	.45	.60	.75	1.25	2.00	2.75
Price, 45° Elbows.....each	.... ..	.....	.44	.55	.70	.90	1.50	2.50	3.50
Price, Tees.....each	.40	.45	.55	.70	.90	1.15	1.80	3.00	4.25
Price, Reducing Tees ...each	.....	.....	.75	1.00	1.25	1.60	2.50	4.25	.....
Price, Crosses..each	.....	.....	1.00	1.25	1.60	2.00	3.25	5.50	.....

Size.....inches	4	4½	5	6	7	8	10	12	.....
Price, Elbows.....each	3.50	4.25	5.50	8.00	12.00	17.00	28.00	40.00	.....
Price, 45° Elbows.....each	4.50	5.50	6.75	9.75	14.50	21.00	34.00	48.00	.....
Price, Tees.....each	5.50	6.75	8.25	12.00	18.00	25.00	42.00	60.00	.....
Price, Reducing Tees...each	7.25	.....	11.50	15.00	23.00	32.00	53.00	75.00	.....
Price, Crosses..each	10.00	.....	15.00	22.00	33.00	45.00	75.00	110.00	.....

Galvanized Extra Heavy Fittings Double Above List.

The radius of these fittings is longer than the ordinary, thereby reducing friction.

We do not recommend the use of screwed fittings above six inches; for larger sizes flanged are more suitable.

For list of sizes of Reducing Tees carried in stock, see page 205.

FIG. 572.

EXTRA HEAVY CAST IRON FLANGE UNIONS.

Faced. No Packing.

For 250 Pounds Working Pressure.

Size.....inches	¾	1	1¼	1½	2	2½	3
Price.....each	.70	.80	1.00	1.15	1.50	1.90	2.25
Diameter of Flanges.....each	3¼	3⅝	4⅛	4⅝	5⅜	6	6¾
Number of Bolts in each.....	4	4	4	4	5	5	6

Size..... .....inches	3½	4	4½	5	6	7	8
Price..... .....each	2.70	3.15	4.00	4.75	6.00	8.25	10.50
Diameter of Flanges.....each	7⅜	8	8⅝	9¾	10¾	12	13¼
Number of Bolts in each.....	6	7	8	8	9	10	10

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

LIST OF SIZES OF EXTRA HEAVY CAST IRON FITTINGS.

Screwed.

For 250 Pounds Working Pressure.

Elbows.

Size.....inches	½	¾	1	1¼	1½	2	2½	3	3½
Size.....inches	4	4½	5	6	7	8	10	12	.....

45° Elbows.

Size ..... inches	1	1¼	1½	2	2½	3	3½	4	4½
Size ..... inches	5	6	7	8	10	12	.....	.....	.....

Tees.

Size.	Size.	Size.
½x ½x ½	3 x3 x3	6x 6x 4
¾x ¾x ¾	3 x3 x2½	6x 6x 3
1 x1 x1	3 x3 x2	6x 6x 2½
1 x1 x ¾	3 x3 x1½	6x 6x 2
1 x1 x ½	3½x3½x3½	7x 7x 7
1¼x1¼x1¼	4 x4 x4	8x 8x 8
1¼x1¼x1	4 x4 x3	8x 8x 6
1¼x1¼x ¾	4 x4 x2½	8x 8x 5
1¼x1¼x1½	4 x4 x2	8x 8x 4
1½x1½x1½	4 x4 x1½	10x10x10
1½x1½x1	5 x5 x5	10x10x 8
2 x2 x2	5 x5 x4	10x10x 6
2 x2 x1½	5 x5 x3	10x10x 4
2 x2 x1¼	5 x5 x2½	12x12x12
2½x2½x2½	5 x5 x2	12x12x10
2½x2½x2	6 x6 x6	12x12x 8
2½x2½x1½	6 x6 x5	12x12x 6

Crosses.

Size ..... inches	1	1¼	1½	2	2½	3	4	5	6
Size ..... inches	7	8	10	12	.....	.....	.....	.....	.....

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EXTRA HEAVY CAST IRON FLANGED FITTINGS.

For 250 Pounds Working Pressure.

STRAIGHT ELBOW.

FIG. 573.

Straight Flanged Elbows.

No. 101 E.

Size.	Center to Face.	Diameter of Flanges.	PRICE. With Faced Flanges.	PRICE. With Faced and Drill'd Flanges,
Inches.	Inches.	Inches.	Each.	Each.
2	5	6½	4.75	5.75
2½	5½	7½	5.00	6.25
3	6	8¼	5.75	7.00
3½	6½	9	6.50	7.75
4	7	10	7.25	9.25
4½	7½	10½	9.00	11.00
5	8	11	9.75	11.75
6	8½	12½	12.00	14.00
7	9	14	16.00	19.75
8	10	15	20.00	23.75
9	10½	16	26.00	30.00
10	11½	17½	32.00	36.00
12	13	20	44.00	50.00
14	14½	22½	58.00	65.00
15	15	23½	72.00	80.00
16	16	25	84.00	93.00
18	17	27	108.00	118.00
20	18½	29½	135.00	148.00
22	20	31½	160.00	180.00
24	22	34	200.00	220.00

45° ELBOW.

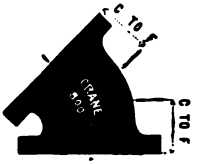

FIG. 574.

45° Flanged Elbows.

No. 103 E.

Size.	Center to Face.	Diameter of Flanges.	PRICE. With Faced Flanges.	PRICE. With Faced and Drill'd Flanges.
Inches.	Inches.	Inches.	Each.	Each.
2	3	6½	5.25	6.25
2½	3½	7½	5.50	6.75
3	3½	8¼	6.25	7.50
3½	4	9	7.25	8.50
4	4½	10½	8.00	10.00
4½	4½	10½	10.00	12.00
5	5	11	10.75	12.75
6	5½	12½	13.00	15.00
7	6	14	16.00	19.75
8	6	15	20.00	23.75
9	6½	16	26.00	30.00
10	7	17½	32.00	36.00
12	8	20	44.00	50.00
14	8	22½	58.00	65.00
15	8½	23½	72.00	80.00
16	9	25	84.00	93.00
18	9½	27	108.00	118.00
20	10	29½	135.00	148.00
22	10½	31½	160.00	180.00
24	11½	34	200.00	220.00

NOTE.—Flanged Fittings will always be furnished faced only, unless otherwise ordered.

Template for drilling, see page 221.

These fittings can be made Tongue and Grooved, or Male and Female, see page 213 when so ordered.

For flanged Taper Reducing Elbows, see page 211.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

EXTRA HEAVY CAST IRON FLANGED FITTINGS.

For 250 Pounds Working Pressure.

STRAIGHT TEE.

FIG. 575.

Straight Flanged Tees

No. 105 E.

REDUCING TEE.

FIG. 576.

Reducing Flanged Tees.

REDUCING IN RUN OR BRANCH.

No. 107 E.

Size.	Center to Face.	Face to Face.	Diameter of Flanges.	PRICE. With Faced Flanges.	PRICE. With Faced and Drilled Flanges.	Size.	PRICE. With Faced Flanges.	PRICE. With Faced and Drilled Flanges.
Inches.	Inches.	Inches.	Inches.	Each.	Each.	Inches.	Each.	Each.
2	5	10	6¼	7.00	8.50	.....	.....	.....
2½	5½	11	7½	7.25	9.00	2½	8.25	10.00
3	6	12	8¼	8.25	10.00	3	9.50	11.25
3½	6½	13	9	9.50	11.25	3½	11.00	12.75
4	7	14	10	10.50	13.50	4	12.00	15.00
4½	7½	15	10½	13.00	16.00	4½	15.00	18.00
5	8	16	11	14.25	17.25	5	16.25	19.25
6	8½	17	12½	17.50	20.50	6	20.00	23.00
7	9	18	14	23.00	28.75	7	26.50	32.00
8	10	20	15	29.00	34.75	8	33.50	39.00
9	10½	21	16	38.00	44.00	9	43.50	50.00
10	11½	23	17½	46.50	52.50	10	53.50	60.00
12	13	26	20	64.00	73.00	12	74.00	83.00
14	14½	29	22½	84.00	95.00	14	96.00	107.00
15	15	30	23½	105.00	117.00	15	120.00	132.00
16	16	32	25	122.00	135.00	16	140.00	153.00
18	17	34	27	155.00	170.00	18	178.00	193.00
20	18½	37	29½	195.00	215.00	20	225.00	245.00
22	20	40	31½	230.00	260.00	22	265.00	295.00
24	22	44	34	290.00	320.00	24	335.00	365.00

NOTE.—Flanged Fittings will always be furnished FACED ONLY, unless otherwise ordered.

Template for drilling, see page 221. These fittings can be made Tongue and Grooved or Male and Female (see page 213) when so ordered.

Reducing Flanged Tees.

For dimensions of Reducing Flanged Tees, see pages 219 and 220.

A moderate assortment of Reducing Tees is carried in stock. To overcome the delay in filling orders for such sizes as are not carried in stock, we can use the reducing flanges with ribs as per illustration and note on page 215, if desired by the customer.

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EXTRA HEAVY CAST IRON FLANGED FITTINGS.

For 250 Pounds Working Pressure.

STRAIGHT SINGLE SWEEP TEE.

FIG. 577.

REDUCING SINGLE SWEEP TEE.

FIG. 578.

Straight Single Sweep Flanged Tees.

No. 109 E.

Reducing Single Sweep Flanged Tees.

REDUCING IN RUN OR BRANCH

No. 111 E.

Size. Inches.	Center to Face. Inches.	Face to Face. Inches.	Diam. of Flanges. Inches.	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.	Size. Inches	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.
2	5	10	6½	8.00	9.50	.....	.....	.....
2½	5½	11	7½	8.25	10.00	2½	9.50	11.25
3	6	12	8¼	9.50	11.25	3	11.00	12.75
3½	6½	13	9	11.00	12.75	3½	12.50	14.25
4	7	14	10	12.00	15.00	4	13.75	16.75
4½	7½	15	10½	15.00	18.00	4½	17.25	20.25
5	8	16	11	16.25	19.25	5	18.75	21.75
6	8½	17	12½	20.00	23.00	6	23.00	26.00
7	9	18	14	26.50	32.00	7	30.00	35.50
8	10	20	15	33.50	39.00	8	38.50	44.00
9	10½	21	16	43.50	50.00	9	50.00	56.50
10	11½	23	17½	53.50	60.00	10	61.50	68.00
12	13	26	20	74.00	83.00	12	85.00	94.00
14	14½	29	22½	96.00	107.00	14	110.00	121.00
15	15	30	23½	120.00	132.00	15	138.00	150.00
16	16	32	25	140.00	153.00	16	160.00	173.00
18	17	34	27	178.00	193.00	18	205.00	220.00
20	18½	37	29½	225.00	245.00	20	258.00	278.00
22	20	40	31½	265.00	295.00	22	305.00	335.00
24	22	44	34	335.00	365.00	24	385.00	415.00

NOTE.—Flanged Fittings will always be furnished FACED ONLY, unless otherwise ordered.

Template for drilling, see page 221.

These fittings can be made Tongue and Grooved or Male and Female (see page 213) when so ordered.

Single Sweep Tees with the Side Opening larger than the run we do not furnish.

For dimensions of Reducing Flanged Tees, see pages 219 and 220.

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THE W. M. PATTISON SUPPLY CO. 209 CLEVELAND

EXTRA HEAVY CAST IRON FLANGED FITTINGS.

Straight and Reducing.

For 250 Pounds Working Pressure.

STRAIGHT CROSS.

FIG. 579.

Straight Flanged Crosses. No. 113 E.

Size. Inches.	Face to Face. Inches.	Diameter of Flanges. Inches.	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.
2	10	6½	9.50	11.50
2½	11	7½	10.00	12.50
3	12	8¼	11.50	14.00
3½	13	9	13.00	15.50
4	14	10	14.50	18.50
4½	15	10½	18.00	22.00
5	16	11	19.50	23.50
6	17	12½	24.00	28.00
7	18	14	32.00	39.50
8	20	15	40.00	47.50
9	21	16	52.00	60.00
10	23	17½	64.00	72.00
12	26	20	88.00	100.00
14	29	22½	116.00	130.00
15	30	23½	144.00	160.00
16	32	25	168.00	186.00
18	34	2	216.00	236.00
20	37	29½	270.00	296.00
22	40	31½	320.00	360.00
24	44	34	400.00	440.00

Reducing Flanged Crosses. No. 115 E

Size. Inches.	Diameter of Flanges. Inches.	PRICE. With Faced Flanges. Each.	PRICE. With Faced and Drilled Flanges. Each.
2	6½	11.00	13.00
2½	7½	11.50	14.00
3	8¼	13.25	15.75
3½	9	15.00	17.50
4	10	16.75	20.75
4½	10½	20.75	25.00
5	11	22.50	26.50
6	12½	27.50	31.50
7	14	37.00	45.00
8	15	46.00	53.50
9	16	60.00	68.00
10	17½	74.00	82.00
12	20	100.00	112.00
14	22½	132.00	146.00
15	23½	165.00	180.00
16	25	193.00	210.00
18	27	248.00	268.00
20	29½	310.00	335.00
22	31½	370.00	410.00
24	34	460.00	500.00

NOTE.—Flanged Fittings will always be furnished FACED ONLY, unless otherwise ordered.

Templates for drilling, see page 221.

These fittings can be made Tongue and Grooved or Male and Female (see page 213) when so ordered.

For dimensions of Reducing Flanged Crosses, see pages 219 and 220.

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EXTRA HEAVY CAST IRON FLANGED FITTINGS.

Straight and Reducing.

For 250 Pounds Working Pressure.

STRAIGHT Y, OR LATERAL.

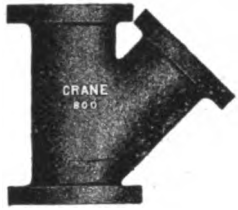

FIG. 580.

Straight Flanged Laterals.

No. 117 E.

Size.	Diameter of Flanges.	PRICE. With Faced Flanges.	PRICE. With Faced and Drilled Flanges.
Inches.	Inches.	Each.	Each.
4	10	14.50	18.50
4½	10½	18.00	22.00
5	11	19.50	23.50
6	12½	24.00	28.00
7	14	32.00	39.50
8	15	40.00	47.50
9	16	52.00	60.00
10	17½	64.00	72.00
12	20	88.00	100.00
14	22½	116.00	130.00
15	23½	144.00	160.00
16	25	168.00	186.00
18	27	216.00	236.00

Reducing Flanged Laterals.

REDUCING IN RUN OR BRANCH

No. 119 E.

Size.	PRICE. With Faced Flanges.	PRICE. With Faced and Drilled Flanges.
Inches.	Each.	Each.
4	16.75	20.75
4½	20.75	25.00
5	22.50	26.50
6	27.50	31.50
7	37.00	45.00
8	46.00	53.50
9	60.00	68.00
10	74.00	82.00
12	100.00	112.00
14	132.00	146.00
15	165.00	180.00
16	193.00	210.00
18	248.00	268.00

NOTE.—Flanged Fittings will always be furnished FACED ONLY, unless otherwise ordered. Larger sizes made to order, prices on application.

Reducing Flanged Laterals being made TO ORDER we are unable to give dimensions.

Templates for drilling, see page 221.

These fittings can be made Tongue and Grooved or Male and Female, see page 213 when so ordered.

For dimensions of Flanged Laterals, see page 220.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

EXTRA HEAVY CAST IRON FLANGED FITTINGS.

Reducing

For 250 Pounds Working Pressure.

REDUCING ELBOW.

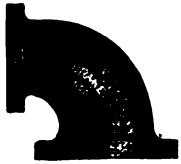

FIG. 581.

Flanged Reducing Taper Elbows.

No. 121 E.

REDUCER.

FIG. 582.

Flanged Taper Reducers.

No. 123.

Size. Inches.	Center to Face. Inches.	Diam. of Flanges. Inches.	PRICE. Faced Flanges. Each.	PRICE. Faced and Drilled Flanges. Each.
3½ x 2½	6½	9 x 7½	13.00	15.50
3½ x 3	6½	9 x 8½	13.00	15.50
4 x 2	7	10 x 6½	14.50	18.50
4 x 2½	7	10 x 7½	14.50	18.50
4 x 3	7	10 x 8½	14.50	18.50
5 x 2½	8	11 x 7½	19.50	23.50
5 x 3	8	11 x 8½	19.50	23.50
5 x 4	8	11 x10	19.50	23.50
6 x 3	8½	12½ x 8½	24.00	28.00
6 x 3½	8½	12½ x 9	24.00	28.00
6 x 4	8½	12½ x10	24.00	28.00
6 x 5	8½	12½ x11	24.00	28.00
7 x 5	9	14 x11	32.00	39.50
7 x 6	9	14 x12½	32.00	39.50
8 x 4	10	15 x10	40.00	47.50
8 x 5	10	15 x11	40.00	47.50
8 x 6	10	15 x12½	40.00	47.50
10 x 5	11½	17½ x11	64.00	72.00
10 x 6	11½	17½ x12½	64.00	72.00
10 x 8	11½	17½ x15	64.00	72.00
12 x 8	13	20 x15	88.00	100.00
12 x10	13	20 x17½	88.00	100.00
14 x10	14½	22½ x17½	116.00	130.00
14 x12	14½	22½ x20	116.00	130.00
15 x10	15	23½ x17½	144.00	160.00
15 x12	15	23½ x20	144.00	160.00
16 x12	16	25 x20	168.00	186.00
16 x14	16	25 x22½	168.00	186.00

Size. Inches.	Face to Face. Inches.	PRICE. Faced Flanges. Each.	PRICE. Faced and Drilled Flanges. Each.
8			
9			
10			
12			
14			
15			
16			
18			
20			
22			
24			
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Owing to the variation in lengths and reductions of Flanged Taper Reducers, we are unable to publish dimensions or prices.

Flanged Reducing Taper Ells not listed above will be made to order at a special price.

Template for drilling, see page 221.

These fittings can be made Tongue and Grooved or Male and Female when so ordered; see page 213.

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EXTRA HEAVY CAST IRON FLANGED FITTINGS.

For 250 Pounds Working Pressure.

ELBOW.

FIG. 583.

Flanged Base Elbows.

No. 125 E.

LONG RADIUS ELBOW.

FIG. 584.

Flanged Long Radius Elbows.

No. 127 E.

Size	Center to Face.	Center to Base.	Diam. of Fl'ges.	PRICE. With Faced Fl'ges.	PRICE. With Faced and Drilled Fl'ges.
Inches.	Inches.	Inches.	Inches.	Each.	Each.
4	7	7	10	12.00	15.00
4½	7½	7½	10½	15.00	18.00
5	8	7½	11	16.25	19.25
6	8½	8	12½	20.00	23.00
7	9	8¾	14	26.50	32.00
8	10	9¼	15	33.50	39.00
9	10½	10	16	43.50	50.00
10	11½	10½	17½	53.50	60.00
12	13	11	20	74.00	83.00
14	14½	14	22½	96.00	107.00
15	15	14½	23½	110.00	122.00
16	16	15¼	25	140.00	153.00

Size	Center to Face.	Radius	Diam. of Fl'ges.	PRICE. With Faced Fl'ges	PRICE. With Faced and Drilled Flanges.
Inches.	Inches.	Inches.	Inches.	Each.	Each.
4	14	12	10	14.50	18.50
5	15	14	11	19.50	23.50
6	16	14	12½	24.00	28.00
7	17½	16	14	32.00	39.50
8	18	16	15	40.00	47.50
9	18	16	16	52.00	60.00
10	18	16	17½	64.00	72.00
12	26	24	20	110.00	120.00
14	33	32	22½	160.00	175.00
15	33	32	23½	180.00	200.00
16	33	32	25	200.00	220.00

Long Radius Elbows of different dimensions from above made to order at a special price.

BASE TEE.

FIG. 585.

No. 129 E.

Flanged Base Tees made to order. Prices on application.
Template for drilling, see page 221.

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EXTRA HEAVY TONGUE AND GROOVED AND MALE AND FEMALE FLANGED FITTINGS.

For 250 Pounds Working Pressure.

FLANGED ELBOW WITH GROOVED FLANGES.

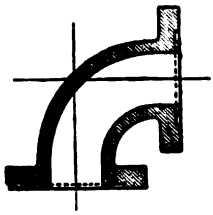

FIG. 586.

FLANGED TEE WITH TONGUED FLANGES

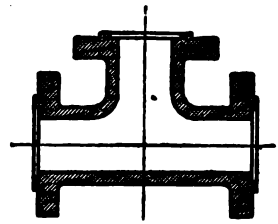

FIG. 587.

FLANGED ELBOW WITH FEMALE FLANGES.

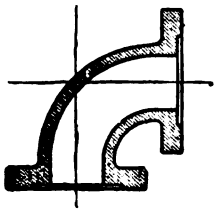

FIG. 588.

FLANGED TEE WITH MALE FLANGES.

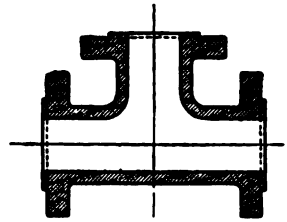

FIG. 589.

Net Price Extra Per Fitting Made With Either Tongued, Grooved, Male or Female Flanges.

Size..... .....inches	2½	3	4	5	6	7	8	9	10	12	14	15	16
Add to Flanged Elbows.....Net, each	1.25	1.25	1.25	1.25	1.50	1.50	2.00	2.00	2.00	2.50	3.25	3.25	4.00
Add to Flanged Tees.....Net, each	1.75	1.75	1.75	1.75	2.00	2.00	2.50	2.50	2.50	3.00	4.00	4.00	5.00
Add to Flanged Crosses.....Net, each	2.25	2.25	2.25	2.25	2.50	2.50	3.00	3.00	3.00	3.50	5.00	5.00	6.00
Add to Flanged Laterals....Net, each	2.25	2.25	2.25	2.25	2.50	2.50	3.00	3.00	3.00	3.50	5.00	5.00	6.00

These fittings will be made to order as desired, viz:

Male, Female, Tongued or Grooved, in any of the openings.

A drawing of these fittings should accompany order to avoid mistakes.

Template for drilling, see page 221.

The length, center to face and face to face, of Male, Female, Tongued or Grooved Flanged Fittings is the same as plain faced Flanged Fittings, per pages 219 and 220, the measurements being from face of Flange and not from tongue or recess.

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EXTRA HEAVY COMPANION FLANGES.

For 250 Pounds Working Pressure.

FIG. 590.

Faced Flanges.
No. 151 E.

BLIND FLANGES.
16 INCHES AND UNDER.

FIG. 591.

Bolts.

BLIND FLANGES.
17 1-2 INCHES AND UNDER.

FIG. 592.

Faced Blind Flanged.
No. 153 E.

Size. Inches.	PRICE. Faced. Each.	Faced and Drilled. Each.	Price of Bolts per Set for one Joint.	Size. Inches.	PRICE. Faced. Each.	Faced and Drilled. Each.
1 x 4½	1.00	1.25	.25	.....	.....	.....
1¼ x 5	1.05	1.35	.25	.....	.....	.....
1½ x 6	1.10	1.40	.25	.....	.....	.....
2 x 6½	1.20	1.50	.25	2 x 6½	1.40	1.70
2½ x 7½	1.40	2.00	.40	2½ x 7½	1.60	2.20
3 x 8¼	1.60	2.25	.55	3 x 8¼	1.85	2.50
3½ x 9	1.80	2.50	.55	3½ x 9	2.10	2.80
4 x10	2.15	3.00	.80	4 x10	2.50	3.35
4½ x10½	2.50	3.35	.80	4½ x10½	2.90	3.75
5 x11	2.80	3.65	.80	5 x11	3.25	4.10
6 x12½	3.20	4.00	1.15	6 x12½	3.70	4.50
7 x14	4.35	5.75	1.80	7 x14	5.00	6.40
8 x15	5.00	6.50	1.80	8 x15	5.75	7.25
9 x16	6.75	8.25	1.80	9 x16	7.75	9.25
10 x17½	7.75	9.25	2.60	10 x17½	9.00	10.60
12 x20	10.50	12.50	3.60	12 x20	14.00	16.00
14 x22½	13.75	16.00	3.60	14 x22½	17.50	19.75
15 x23½	18.00	21.00	4.75	15 x23½	22.50	25.50
16 x25	22.50	26.00	4.75	16 x25	28.00	31.50
18 x27	27.50	31.00	5.60	18 x27	33.00	36.50
20 x29½	30.00	34.00	.....	20 x29½	36.00	40.00
22 x31½	.....	.....	.....	22 x31½	41.00	46.00
24 x34	.....	.....	.....	24 x34	50.00	55.00

NOTE.—All the Flanges on our Flanged Fittings are drilled in multiples of four, so that Fittings may be made to face in any quarter, and holes straddle center-line.

For Tongue and Grooved or Male and Female Flanges, see page 216.

Template for drilling, see page 221.

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EXTRA HEAVY REDUCING COMPANION FLANGES WITH RIBS.

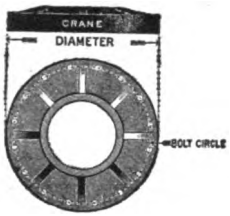

FIG. 593.

For 250 Pounds Working Pressure.

No. 155 E.

Size. Inches.	PRICE. Faced. Each.	PRICE. Faced and Drilled Each.	Size. Inches.	PRICE. Faced. Each.	PRICE. Faced and Drilled. Each.	Size. Inches.	PRICE. Faced, Each.	PRICE. Faced and Drilled, Each.
2 x 7½	2.10	3.00	5x14	6.50	8.50	14x23½	27.00	31.50
2 x 8¼	2.40	3.35	6x14	6.50	8.50	10x25	34.00	39.00
2½x 8¼	2.40	3.35	5x15	7.50	9.75	12x25	34.00	39.00
2 x 9	2.70	3.75	6x15	7.50	9.75	14x25	34.00	39.00
2½x 9	2.70	3.75	7x15	7.50	9.75	15x25	34.00	39.00
3 x 9	2.70	3.75	6x16	10.00	12.25	12x27	41.00	46.00
2½x10	3.25	4.50	7x16	10.00	12.25	14x27	41.00	46.00
3 x10	3.25	4.50	8x16	10.00	12.25	15x27	41.00	46.00
3½x10	3.25	4.50	7x17½	11.50	14.00	16x27	41.00	46.00
3 x10½	3.75	5.00	8x17½	11.50	14.00	14x29½	45.00	51.00
3½x10½	3.75	5.00	9x17½	11.50	14.00	15x29½	45.00	51.00
4 x10½	3.75	5.00	8x20	15.75	18.75	16x29½	45.00	51.00
3½x11	4.25	5.50	9x20	15.75	18.75	18x29½	45.00	51.00
4 x11	4.25	5.50	10x20	15.75	18.75	16x31½	50.00	58.50
4½x11	4.25	5.50	9x22½	20.00	24.00	18x31½	50.00	58.50
4 x12½	4.75	6.00	10x22½	20.00	24.00	20x31½	50.00	58.50
4½x12½	4.75	6.00	12x22½	20.00	24.00	18x34	61.00	70.00
5 x12½	4.75	6.00	10x23½	27.00	31.50	20x34	61.00	70.00
4½x14	6.50	8.50	12x23½	27.00	31.50	.....	.....	.....

It is not possible to carry in stock a line of reducing flange fittings sufficiently large to meet all demands promptly. We aim to carry a complete line of straight sizes and a moderate line of reducing tees, but we do not attempt to cover all possible sizes.

To avoid delay, we carry in stock a line of reducing ribbed flanges as illustrated above. These flanges, used in connection with straight or reducing fittings carried in stock, enable us to fill orders for reduced sizes very promptly.

Customers who desire fittings reduced in this manner will please specify "Reduce by Flanges if necessary."

Reducing flanges are carried in stock as per table above.

These flanges will always be the same thickness as the regular companion flanges of corresponding outside diameter.

See Template for drilling, page 221.

The flanges are always drilled to the template corresponding to the outside diameter unless otherwise ordered.

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EXTRA HEAVY TONGUE AND GROOVED, MALE AND FEMALE AND CALKING RECESS FLANGES.

For 250 Pounds Working Pressure.

MALE FLANGE. TONGUE FLANGE.

FIG. 594. FIG. 595.

FEMALE FLANGE. GROOVED FLANGE.

FIG. 596. FIG. 597.

PLAIN FLANGE WITH CALKING RECESS

FIG. 598.

Size. Inches.	Add for Tongue or Groove. Per Flange.	Add for Male or Female. Per Flange.	Add for Calking Recess. Per Flange.
2½ x 7½	Net .65	Net .65	Net .65
3 x 8¼	Net .65	Net .65	Net .65
3½ x 9	Net .65	Net .65	Net .65
4 x10	Net .65	Net .65	Net .65
4½ x10½	Net .65	Net .65	Net .65
5 x11	Net .65	Net .65	Net .65
6 x12½	Net .80	Net .80	Net .80
7 x14	Net .80	Net .80	Net .80
8 x15	Net 1.00	Net 1.00	Net 1.00
9 x16	Net 1.00	Net 1.00	Net 1.00
10 x17½	Net 1.00	Net 1.00	Net 1.00
12 x20	Net 1.25	Net 1.25	Net 1.25
14 x22½	Net 1.60	Net 1.60	Net 1.60
15 x23½	Net 1.60	Net 1.60	Net 1.60
16 x25	Net 2.00	Net 2.00	Net 2.00

These extra net prices for Male, Female, Tongue or Grooved Flanges will be added also to Shrunk Flanges when so ordered.

Template for drilling, see page 221.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

For 250 Pounds Working Pressure.

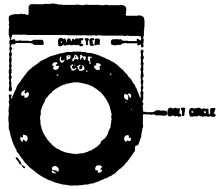

FIG. 599.

No. 157 E.

Size.....inches	2½	3	3½	4	4½	5	6	7	8	9	10	12
Diameter of Flanges....inches	7½	8¼	9	10	10½	11	12½	14	15	16	17½	20
Price, Faced only.....each	7.00	8.00	9.25	10.75	12.25	13.50	16.50	19.00	22.00	27.50	37.00	46.00
Price, Faced and Drilled...each	8.00	9.00	10.50	12.00	13.50	15.00	18.00	21.00	24.00	30.00	40.00	50.00

Larger sizes made to order. Prices on application.

Table of Dimensions.

FORGED STEEL COMPANION FLANGES.

Size.....inches	2½	3	3½	4	4½	5	6	7	8	9	10	12
Diameter of Flanges...inches	7½	8¼	9	10	10½	11	12½	14	15	16	17½	20
Thickness of Flanges..inches	1/16	3/4	13/16	15/16	15/16	15/16	1	1 1/16	1 1/8	1 1/8	1 3/16	1 1/4
Diameter of Hub.....inches	4	4 5/8	5 1/2	5 3/4	6 3/16	6 3/4	7 5/16	9	10 1/8	11 1/16	12 3/8	14 5/8
Length of Thread.....inches	1 7/16	1 9/16	1 5/8	1 3/4	1 13/16	1 7/8	2	2 1/16	2 1/16	2 1/4	2 3/8	2 9/16
Diameter of Bolt Circle...inches	5 1/8	6 5/8	7 1/4	7 7/8	8 1/2	9 1/4	10 5/8	11 7/8	13	14	15 1/4	17 3/4
Number of Bolts.....	4	8	8	8	8	8	12	12	12	12	16	16
Size of Bolts .....inches	3/4	5/8	5/8	3/4	3/4	3/4	3/4	7/8	7/8	7/8	7/8	7/8

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EXTRA HEAVY SHRUNK FLANGES.

For 250 Pounds Working Pressure.

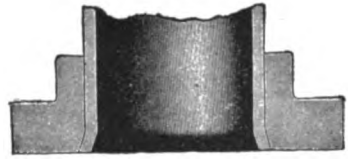

FIG. 600.

Style " D."

Size.....inches	4	4½	5	6	7	8	9	10
Diameter of Flanges.....inches	10	10½	11	12½	14	15	16	17½
Price, Faced and Drilled and Shrunk on Pipe..	19.00	20.00	21.00	22.00	26.00	29.00	32.00	34.00
Add for Tongue or Groove per Flange, Net.....each	.65	.65	.65	.80	.80	1.00	1.00	1.00
Add for Male or Female per Flange, Net.....each	.65	.65	.65	.80	.80	1.00	1.00	1.00

Size.....inches	12	14	15	16	18	20	22	24
Diameter of Flanges.....inches	20	22½	23½	25	27	29½	31½	34
Price, Faced and Drilled and Shrunk on Pipe..	40.00	45.00	48.00	53.00	61.00	70.00	85.00	100.00
Add for Tongue or Groove per Flange, Net.....each	1.25	1.60	1.60	2.00	.....	.....	.....	.....
Add for Male or Female per Flange Net .....each	1.25	1.60	1.60	2.00	.....	.....	.....	.....

Template for drilling, see page 221.

Bossed Shrunk Flanges will be made to order at a special price.

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THE W. H. PATTISON SUPPLY CO. CLEVELAND

DIMENSIONS OF EXTRA HEAVY FLANGED FITTINGS.

For 250 Pounds Working Pressure.

REDUCING FITTINGS NOT COVERED IN THIS TABLE WILL BE FOUND ON PAGE 220.

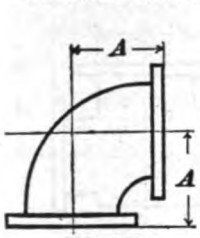

FIG. 601.

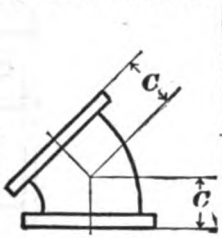

FIG. 602.

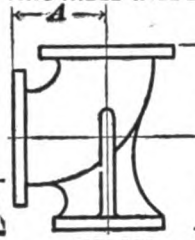

FIG. 603.

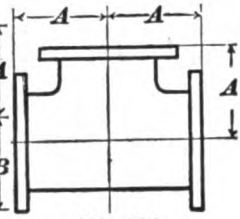

FIG. 604

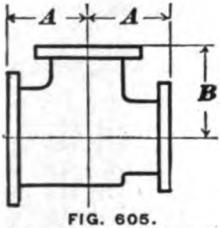

FIG. 605.

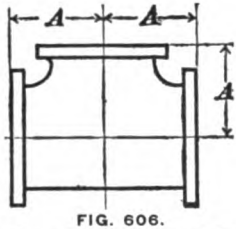

FIG. 606.

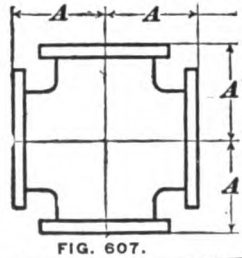

FIG. 607.

Size of Run.....	Inches.	2	2½	3	3½	4	4½	5	6	7	8	9
Outlets.....	Inches.	All Reducing Fittings 2″ to 9″ inclusive are the same dimens'ns as straight fittin's center to face										
Face to Face.....	AA	10	11	12	13	14	15	16	17	18	20	21
Center to Face.....	A	5	5½	6	6½	7	7½	8	8½	9	10	10½
Center to Face of 45° Ells.....	C	3	3½	3½	4	4½	4½	5	5½	6	6	6½
Center to Base of Base Ells.....	B	5½	6	6½	6¾	7	7½	7½	8	8¾	9½	10
Diameter of Flanges.....	Inches.	6½	7½	8¼	9	10	10½	11	12½	14	15	16
Thickness of Flanges.....	Inches.	7/8	1	1⅛	1 3/16	1¼	1 5/16	1⅜	1 7/16	1½	1⅝	1¾

Size of Run.....	Inches.	10	12	14	15	16	18	20	22	24	.....	.....
Outlets.....	Inches.	7 and larger	9 and larger	10 and larger	10 and larger	12 and larger	14 and larger	16 and larger	16 and larger	16 and larger	....	....
Face to Face.....	AA	23	26	29	30	32	34	37	40	44	.....	.....
Center to Face.....	A	11½	13	14½	15	16	17	18½	20	22	.....	.....
Center to Face of 45° Ells.....	C	7	8	8	8½	9	9½	10	10¼	11½	.....	....
Center to base of base Ells.....	B	10½	11	14	14½	15½	15½	16¾	17¾	18¾	.....	.....
Diameter of Flanges.....	Inches.	17½	20	22½	23½	25	27	29½	31½	34	.....	.....
Thicknes of Flanges.....	Inches.	1⅞	2	2⅛	2 3/16	2¼	2⅜	2½	2⅝	2¾	.....	.....

Tees Increasing on the Outlet.

Tees having outlet larger than the run will be the same length center to face of all openings as a Tee with all openings of the size of the outlet.

Example.

A 12 x 12 x 18-inch Tee will be governed by the dimensions of the 18-inch Tee, namely, 17 inches center to face of all openings, and 34 inches face to face. The face to face dimensions of Flanged Fittings are not changed by a reduction on the run.

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DIMENSIONS OF EXTRA HEAVY FLANGED FITTINGS.

For 250 Pounds Working Pressure.

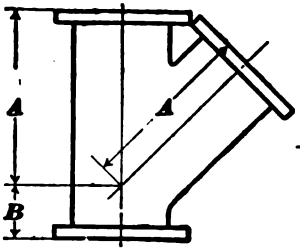

FIG. 608.

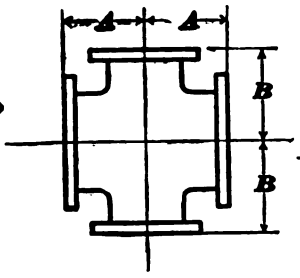

FIG. 609.

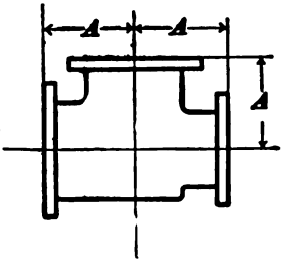

FIG. 610.

Extra Heavy Flanged Laterals or Y's.

Size.....inches	2	2½	3	3½	4	4½	5	6	7	8
Face to Face.....inches	11½	13	14	15½	16½	18	18½	21½	23	25
Center to Face, A.....inches	9	10½	11	12½	13½	14½	15	17½	18½	20
Center to Face, B.....inches	2½	2½	3	3	3	3½	3½	4	4½	5
Diameter of Flanges.....inches	6½	7½	8½	9	10	10½	11	12½	14	15
Thickness of Flanges.....inches	7/8	1	1⅛	1 3/16	1¼	1 5/16	1⅜	1 7/16	1½	1⅝

Size.....inches	9	10	12	14	15	16	18	20	22	24
Face to Face.....inches	26	28½	32½	36½	38	40½	44	46½	50	54
Center to Face, A.....inches	21	23	26½	30	31½	33	36	38	40½	44
Center to Face, B.....inches	5	5½	6	6½	6½	7½	8	8½	9½	10
Diameter of Flanges.....inches	16	17½	20	22½	23½	25	27	29½	31½	34
Thickness of Flanges.....inches	1¾	1⅞	2	2⅛	2 3/16	2¼	2⅜	2½	2⅝	2¾

Reducing Laterals being made to order we are unable to give dimensions.

Extra Heavy Flanged Tees and Crosses.

HAVING OUTLET SMALLER THAN SHOWN ON PAGE 219.

Size of Run.....inches	10	12	14	15	16	18	20	22	24
Outlets .....inches	6 and smaller	8 and smaller	9 and smaller	9 and smaller	10 and smaller	12 and smaller	14 and smaller	14 and smaller	14 and smaller
Face to Face, AA....inches	18	21	22	23	24	27	30	30	30
Center to Face, A....inches	9	10½	11	11½	12	13½	15	15	15
Center to Face, B..inches	11	12½	13½	13½	15	16½	17½	18½	19½
Diameter of Flanges...in	17½	20	22½	23½	25	27	29½	31½	34
Thickness of Flanges...in	1⅞	2	2⅛	2 3/16	2¼	2⅜	2½	2⅝	2¾

The Face to Face Dimensions of Flanged Fittings are not changed by a reduction on the run.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CRANE'S EXTRA HEAVY DIAMETER OF FLANGES AND TEMPLATES FOR DRILLING.

Extra Heavy Flange Valves, Fittings and Flanges

For 250 Pounds Working Pressure.

Size. Inches.	Diameter of Flanges. Inches	Bolt Circle. Inches.	Number of Bolts.	Size of Bolts.	Length of Bolts.
1	4½	3½	4	½	2
1¼	5	3¾	4	½	2¼
1½	6	4½	4	⅝	2½
2	6½	5	4	⅝	2½
2½	7½	5⅞	4	¾	2¾
3	8¼	6⅝	8	⅝	3
3½	9	7¼	8	⅝	3¼
4	10	7⅞	8	¾	3½
4½	10½	8½	8	¾	3¾
5	11	9¼	8	¾	3¾
6	12½	10⅝	12	¾	4
7	14	11⅞	12	⅞	4
8	15	13	12	⅞	4¼
9	16	14	12	1	4½
10	17½	15¼	16	⅞	4¾
12	20	17¾	16	⅞	5
14	22½	20	20	⅞	5¼
15	23½	21	20	1	5½
16	25	22½	20	1	5¾
18	27	24½	24	1	6
20	29½	26¾	24	1⅛	6¼
22	31½	28¾	28	1⅛	6½
24	34	31¼	28	1⅛	6¾

NOTE.—Flanges, Flanged Fittings, Valves, etc., are drilled in multiples of four, so that fittings may be made to face in any quarter and holes straddle center-line.

We will drill Fittings, Valves, etc., to any other Template desired, but would advise that the Crane Extra Heavy Template be used.

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RAINBOW GASKETS.

For Extra Heavy Flanged Fittings and Valves.

Ring Gaskets.

1-16 INCH THICK.

Full Gaskets.

1-16 INCH THICK.

Size. Inches.	Inside Diameter of Gaskets. Inches.	Outside Diameter of Gaskets. Inches.	Rainbow Gaskets. Each.	Size. Inches.	Inside Diameter of Gaskets. Inches.	Outside Diameter of Gaskets. Inches.	Rainbow Gaskets. Each.
2	2	4¼	.45	2	2	6½	.85
2½	2½	5	.55	2½	2½	7½	1.10
3	3	6	.65	3	3	8¼	1.75
3½	3½	6½	.75	3½	3½	9	1.85
4	4	7	.90	4	4	10	2.00
4½	4½	7¾	1.00	4½	4½	10½	2.25
5	5	8½	1.10	5	5	11	2.50
6	6	9¾	1.30	6	6	12½	3.00
7	7	11	1.60	7	7	14	3.50
8	8	12	2.25	8	8	15	4.50
9	9	13	2.75	9	9	16	5.50
10	10	14¼	3.00	10	10	17½	6.00
12	12	16¾	4.25	12	12	20	8.00
14	13¼	19	5.00	14	13¼	22½	8.50
15	14¼	20	5.25	15	14¼	23½	9.00
16	15¼	21½	5.50	16	15¼	25	9.25
18	17¼	23½	6.00	18	17¼	27	11.00
20	19¼	25½	6.50	20	19¼	29½	11.50
22	21¼	27½	7 50	22	21¼	31½	13.50
24	23¼	30	8.50	24	23¼	34	16.50

Corrugated Copper Gaskets.

Corrugated Copper Gaskets of same dimensions as above Ring Gaskets furnished at same list price.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

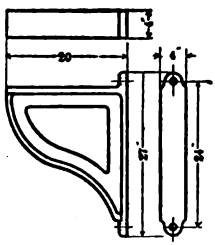

FIG. 611.
No. 1.

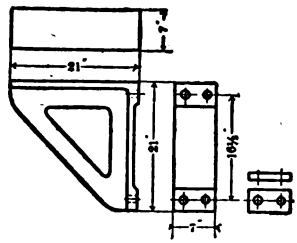

FIG. 612.
No. 2.

FIG. 613.
No. 7.

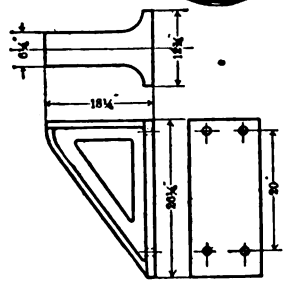

FIG. 614.
No. 3.

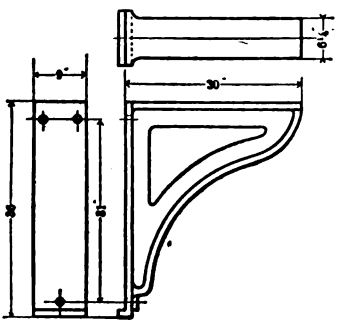

FIG. 615.
No. 4.

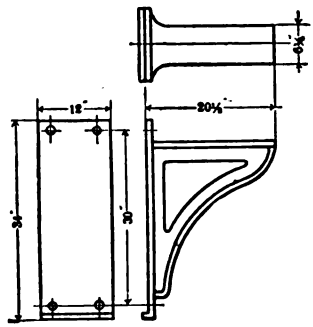

FIG. 616.
No. 5.

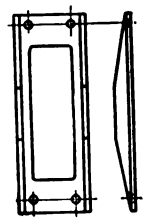

FIG. 617.
No. 8.

ANCHOR BRACKET.
CAN BE MADE FROM ANY STYLE OF BRACKET.

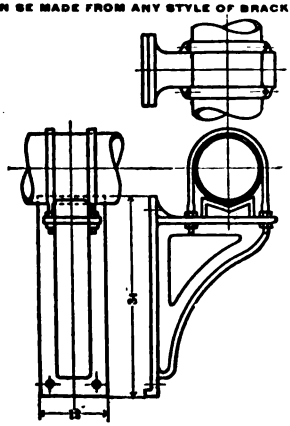

FIG. 618

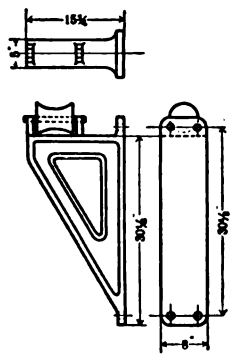

FIG. 619.
No. 9.

For price list, see pages 225 and 226.

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PIPE ROLLS, SUPPORTS, SLEEVES AND ARCHES.

FIG. 620.
A

FIG. 622.
B

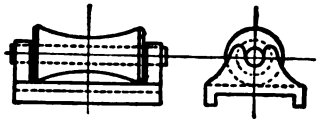

FIG. 623.
C

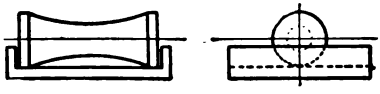

FIG. 624.
D

FIG. 626.
E

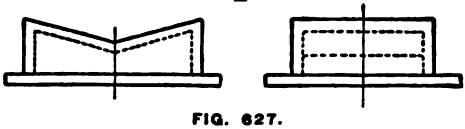

FIG. 627.
F

WALL ARCH.

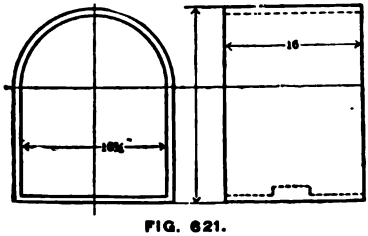

FIG. 621.
No. 6.

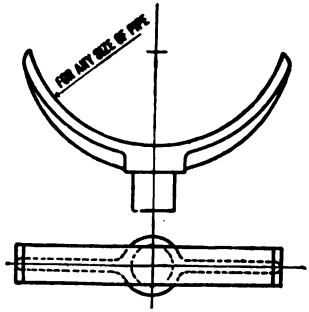

FIG. 625.
G

WALL SLEEVE.

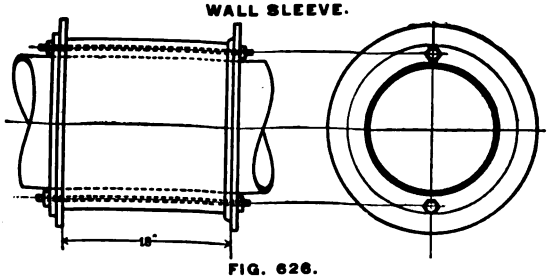

FIG. 628.
No. 10.

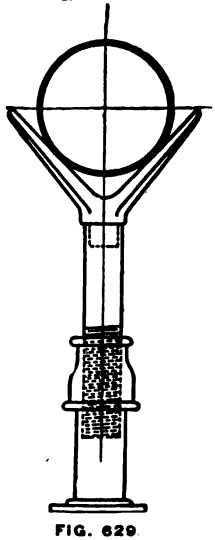

FIG. 629.
H

For price list, see pages 225 and 226.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

WALL BRACKETS.

No. 1. Bracket suitable for high pressure pipe line, 8-inch or smaller, or standard pipe line 10-inch or smaller, also well adapted to carry two small high pressure lines.

Price, Bracket only .....net each, 4.00
Price, "B" Universal Roller Box and Rolls....net each, 2.00

Price, 1-inch Wall Bolts, Nuts and Washers for same, according to length, furnished on application.

No. 2. Bracket designed to support a base fitting where a vertical line of piping runs up a wall. It may also be used as a support for pipe lines up to 12-inch.

Price, Bracket only .....net each, 6.00

Price, 1-inch Wall Bolts, Nuts and Washers for same, according to length, furnished on application.

No. 3. Bracket suitable for pipe lines, 12-inch and smaller.

Price, Bracket only .....net each, 6.00

Price, 1-inch Wall Bolts, Nuts and Washers for same, according to length, furnished on application.

No. 4. Bracket suitable for high pressure pipe lines up to 20-inch.

Price, Bracket only .....net each, 10.00

Price, 1-inch Wall Bolts, Nuts and Washers for same, according to length, furnished on application.

No. 5. Bracket suitable for high pressure pipe lines up to 14-inch.

Price, Bracket only .....net each, 10.00

Price, 1-inch Wall Bolts with Nuts and Washers for same, according to length, furnished on application.

No. 9. Bracket suitable for high pressure pipe lines up to 8-inch.

Price, Bracket only .....net each, $9.00

Price, 1-inch Wall Bolts with Nuts and Washers for same, according to length, furnished on application.

Anchor Brackets can be made from any size of Brackets. Prices on application.

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WALL PLATES, SLEEVES, SUPPORTS AND PIPE ROLLS.

No. 7. Wall Plates or Bracket Back suitable for any bracket except No. 1.

Price.....net per pair, 1.00

No. 8. Wall Plates or Bracket Back for No. 5 Bracket.

Price.....net each, 4.00

"A." Universal Roller Box with Rolls, may be used on Brackets Nos. 2, 3, 4, 5 and 6.

Price.....net each, 2.00

"B." Universal Roller Box with Rolls, may be used on Bracket No. 1.

Price.....net each, 2.00

"C." Trunnion Bearing Roller Support, may be used on any Bracket.

Price according to size.

"D." Plate and Roller.

Price according to size.

"E." Base Plate to support Universal Roller A, for use on top of piers or beams.

Price according to size.

"F." V Block Support, suitable for pipe 10 inches and larger.

Price.....net each, 2.00

"H." Adjustable Pipe Support, for any size pipe, any height.

Price on application.

"G." Adjustable Pipe Support, can be used in place of top of "H."

Price on application.

No. 6. Wall Arch for 12-inch pipe and smaller, will take Rollers "A" or "C."

Price on application.

No. 10. Wall Sleeves for pipe 10-inch and smaller, the sleeve proper is 18 inches inside diameter, the end covers fit close around the pipe.

Price.....net each, 12.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CRANE'S COPPER DISC, EXTRA HEAVY BRASS, GLOBE AND ANGLE VALVES.

Screwed and Flanged.

For 250 Pounds Working Pressure.

GLOBE VALVE, SCREWED

FIG. 630.

No. 60 E.

Copper Disc Globe and Angle Valves, Screwed, No. 60 E.

Size.....inches	¼	⅜	1	1¼	1½	2	2½	3
Price .....each	3.75	4.25	5.50	7.75	10.00	15.00	27.50	38.50

Copper Disc Globe and Angle Valves, Flanged, No. 61 E.

Size.....inches	1	1¼	1½	2	2½	3
Price.....each	11.00	15.00	21.00	28.00	45.00	68.00
Diameter of Flanges.....inches	4¼	5	6	6½	7½	8¼
Face to Face, Globe..... .....inches	3 5/16	4½	5 3/16	6 3/16	7 7/16	8⅞
Center to Inlet or Outlet, Angle...in	2⅞	3 3/16	3¾	4 1/16	4 11/16	5 3/16

Extra Copper Discs.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	.06	.08	.08	.10	.12	.18	.24	.36	.48	.66

Template for drilling, see page 221.

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EXTRA HEAVY BRASS CHECK VALVES.

For 250 Pounds Working Pressure.

CUP PATTERN CHECK VALVE.

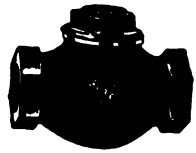

FIG. 631.

No. 76 E.

SWING CHECK VALVE.

FIG. 632.

No. 74 E.

Cup Pattern Check Valves, No. 76 E.

Size.....inches	¾	1	1¼	1½	2
Price.....each	2.50	3.50	5.00	7.00	11.00

Swing Check Valves, No. 74 E.

Size.....inches	½	¾	1	1¼	1½	2
Price.....each	3.25	3.25	4.25	6.00	7.50	12.00

The Cup Check Valve illustrated above IS A VERY SUPERIOR ARTICLE AND THE BEST FORM OF A VALVE FOR HIGH PRESSURE WORK.

These Valves have a full opening and the construction is such that they will CLOSE PROMPTLY on account of the back pressure coming squarely on top of the disc, and the wall being higher than the disc when open, the water once forced through can not return to the Pump.

EXTRA HEAVY HARD METAL STEAM COCKS.

Square Head.

STEAM COCK, SQUARE HEAD.

FIG. 633.

No. 80 E.

Size.....inches	⅜	½	¾	1	1¼	1½	2	2½	3
Price .....each	1.75	1.75	2.40	3.60	6.00	7.75	11.50	23.00	35.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

EXTRA HEAVY IRON BODY GLOBE VALVES.

With Yoke and Hard Metal Seats.

Screwed and Flanged.

For 250 Pounds Working Pressure.

GLOBE VALVE, FLANGED.

FIG. 634.

No. 21 E.

Globe Valves, Screwed, No. 20 E.

Size .....inches	2½	3	4	5	6	7	8	10
Price .....each	33.00	37.00	46.00	61.00	75.00	95.00	114.00	190.00
End to End .....inches	10⅝	11¾	13	14⅞	16½	18½	20	23½

Globe Valves, Flanged, No. 21 E.

Size.....inches	2½	3	4	5	6	7	8	10	12	14	15
Price.. .....each	35.00	40.00	50.00	65.00	80.00	100.00	120.00	200.00	300.00	400.00	400.00
Diameter of Flanges..in.	7½	8½	10	11	12½	14	15	17½	20	22½	23½
Face to Face..in	11½	12½	14	15¾	17½	19½	21	24½	28	33	33
Bolt Circle ....in	5⅞	6⅝	7⅞	9¼	10⅝	11⅞	13	15¼	17¾	20	21
Size of Bolts..in	¾	⅝	¾	¾	⅞	⅞	⅞	⅞	⅞	⅞	1
Number of Bolts.....	4	8	8	8	12	12	12	16	16	20	20

We do not recommend the use of Screwed End Valves larger than 6 inches.

The construction of these Valves is such that they may be packed when open. To do so have Valve wide open.

The Template in the above table is in multiples of four, so that Valves or Fittings may be made to face in any quarter and the holes straddle center-line.

We will drill to any other Template if desired.

For further particulars as to Dimensions and Templates, see pages 235, 236 and 221.

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EXTRA HEAVY IRON BODY ANGLE VALVES.

With Yoke and Hard Metal Seats.

Screwed and Flanged.

For 250 Pounds Working Pressure.

ANGLE VALVE, FLANGED.

FIG. 635.

No. 23 E.

Angle Valves, Screwed, No. 22 E.

Size .....inches	2½	3	4	5	6	7	8	10
Price.....each	33.00	37.00	46.00	61.00	75.00	95.00	114.00	190.00
Center to Inlet or Outlet.....inches	5⅜	5⅞	6½	7½	8¼	9⅛	10	11⅝

Angle Valves, Flanged, No. 23 E.

Size.....inches	2½	3	4	5	6	7	8	10	12	14	15
Price.....each	35.00	40.00	50.00	65.00	80.00	100.00	120.00	200.00	300.00	400.00	400.00
Diameter of Flanges, ...inches	7½	8¼	10	11	12½	14	15	17½	20	22½	23½
Center to Inlet or Outlet.....inches	5⅜	6¼	7	7⅞	8¾	9⅝	10½	12¼	14	16½	16½
Bolt Circle.....inches	5⅞	6⅝	7⅞	9¼	10⅝	11⅞	13	15¼	17¾	20	21
Size of Bolts...inches	¾	⅝	¾	¾	¾	⅞	⅞	⅞	⅞	⅞	1
Number of Bolts	4	8	8	8	12	12	12	16	16	20	20

We do not recommend the use of Screwed End Valves larger than 6 inches.

The construction of these Valves is such that they may be packed when open. To do so have Valve wide open.

The Template in the above table is in multiples of four, so that Valves or Fittings may be made to face in any quarter, and the holes straddle center-line.

We will drill to any other Template if desired.

For further particulars as to Dimensions and Templates, see pages 235, 236 and 221.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

EXTRA HEAVY IRON BODY CROSS VALVES.

With Yoke and Hard Metal Seats.

Screwed and Flanged

For 250 Pounds Working Pressure.

CROSS VALVE, FLANGED.

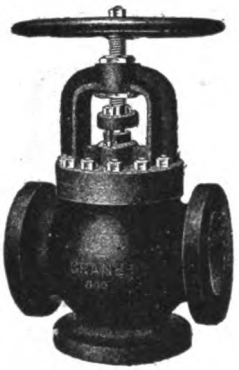

FIG. 636.

No. 25 E.

Cross Valves, Screwed, No. 24 E.

Size.....inches	2½	3	4	5	6	7	8	10
Price.....each	40.00	45.00	55.00	75.00	95.00	120.00	145.00	240.00
End to End.....inches	10⅝	11¾	13	14⅞	16½	18¼	20	23¾

Cross Valves, Flanged, No. 25 E.

Size.....inches	2½	3	4	5	6	7	8	10	12	14	15
Price.....each	43.00	50.00	60.00	80.00	100.00	125.00	150.00	250.00	375.00	500.00	500.00
Diam. of Fl'ges.....in.	7½	8¼	10	11	12½	14	15	17½	20	22½	23½
Face to Face.....in.	11½	12½	14	15¾	17½	19½	21	24½	28	33	33
Bolt Circle.....in.	5⅞	6⅝	7⅞	9¼	10⅝	11⅞	13	15½	17¾	20	21
Size of Bolts.....in.	¾	⅞	¾	¾	¾	⅞	⅞	⅞	⅞	⅞	1
Number of Bolts.....	4	8	8	8	12	12	12	16	16	20	20

We do not recommend the use of Screwed End Valves larger than 6 inches.

The construction of these Valves is such that they may be packed when open. To do so have Valve wide open.

The Template in the above table is in multiples of four, so that Valves or Fittings may be made to face in any quarter and the holes straddle center-line.

We will drill to any other Template if desired.

For further particulars as to Dimensions and Templates, see pages 235, 236 and 221.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

EXTRA HEAVY IRON BODY GLOBE, ANGLE AND CROSS VALVES.

With By-Pass, Yoke, and Hard Metal Seats

Flanged.

For 250 Pounds Working Pressure.

ANGLE VALVE, FLANGED WITH BY-PASS.

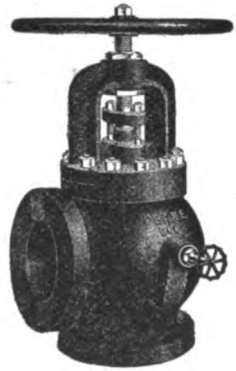

FIG. 637.

No. 29 E.

Globe and Angle Valves, Flanged, Nos. 27 and 29 E.

Size.....inches	8	10	12	14	15
Price.....each	150.00	250.00	350.00	450.00	450.00
Diameter of Flanges...inches	15	17½	20	22½	23½
By Pass.....inches	1½	1½	2	2	2
Bolt Circle.....inches	13	15¼	17¾	20	21
Size of Bolts.....inches	⅞	⅞	⅞	⅞	1
Number of Bolts.....	12	16	16	20	20

Cross Valves, Flanged, No. 31 E.

Size.....inches	8	10	12	14	15
Price.....each	180.00	300.00	425.00	550.00	550.00
Diameter of Flanges...inches	15	17½	20	22½	23½
By Pass.....inches	1½	1½	2	2	2
Bolt Circle.....inches	13	15¼	17¾	20	21
Size of Bolts.....inches	⅞	⅞	⅞	⅞	1
Number of Bolts.....	12	16	16	20	20

We do not recommend the use of Screwed End Valves larger than 6 inches.

The construction of these Valves is such that they may be packed when open. To do so have Valve wide open.

The Template in the above table is in multiples of four, so that Valves or Fittings may be made to face in any quarter and the holes straddle center-line.

We will drill to any other Template if desired.

For further particulars as to Dimensions and Templates, see pages 235, 236 and 221.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 233

EXTRA HEAVY IRON BODY SWING CHECK VALVES.

Hard Metal Seats.

Screwed and Flanged.

For 250 Pounds Working Pressure.

CHECK VALVE, FLANGED.

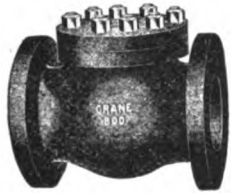

FIG. 638.

No. 39 E.

Check Valves, Screwed, No. 38 E.

Size.....inches	2½	3	4	5	6	7	8	10
Price .....each	33.00	37.00	46.00	61.00	75.00	95.00	114.00	190.00
End to End.....inches	10⅝	11¾	13	14⅞	16½	18¼	20	23¼

Check Valves, Flanged, No. 39 E.

Size..... inches	2½	3	4	5	6	7	8	10	12
Price.....each	35.00	40.00	50.00	65.00	80.00	100.00	120.00	200.00	300.00
Diameter of Flanges...in.	7½	8½	10	11	12½	14	15	17½	20
Face to Face...in.	11½	12½	14	15¾	17½	19¼	21	24½	28

Template for drilling, see page 221.

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EXTRA HEAVY IRON BODY AUTOMATIC STOP AND CHECK VALVES.

Globe Pattern.

For 250 Pounds Working Pressure.

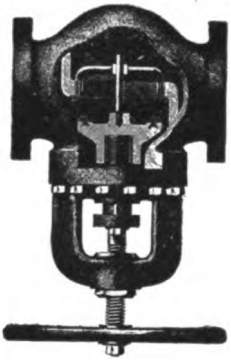

FIG. 639.

No. 41 E.

Automatic Stop and Check Valves, Screwed, No. 40 E.

Size .....inches	4	5	6	7	8	10
Price .....each	55.00	75.00	90.00	115.00	140.00	230.00
End to End.....inches	13	14⅞	16½	18¼	20	23¼

Automatic Stop and Check Valves, Flanged, No. 41 E.

Size .....inches	4	5	6	7	8	10	12
Price.....each	60.00	80.00	95.00	120.00	145.00	240.00	360.00
Diameter of Flanges.....inches	10	11	12½	14	15	17½	20
Face to Face.....inches	14	15¾	17½	19½	21	24½	28

These Valves, when placed between the boiler and the header, will equalize the pressure between the different units of a battery, as they remain closed as long as the individual boiler pressure is lower than that of the header. When the boiler pressure equals the header pressure they open and will remain in that position without chattering while the equality of pressure exists. They will automatically cut off a boiler in case a tube blows out and will also act as a safety stop to prevent steam being turned into a cold boiler while men are working inside.

The stem should be down (as shown above) or horizontal, otherwise the Valve will chatter.

Template for drilling, see page 221.

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GLOBE, ANGLE AND CROSS VALVES.

THE W. M. PATTISON SUPPLY CO. CLEVELAND 235

For 250 Pounds Working Pressure.

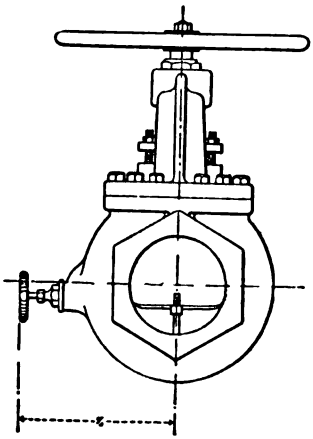

FIG. 640.

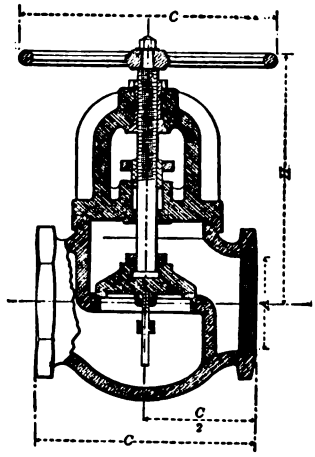

FIG. 641.

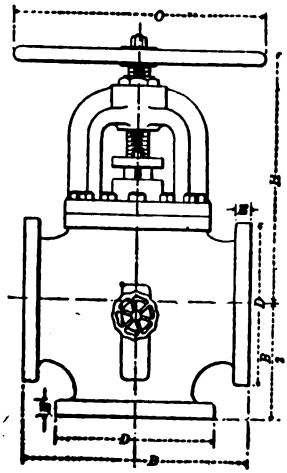

FIG. 642.

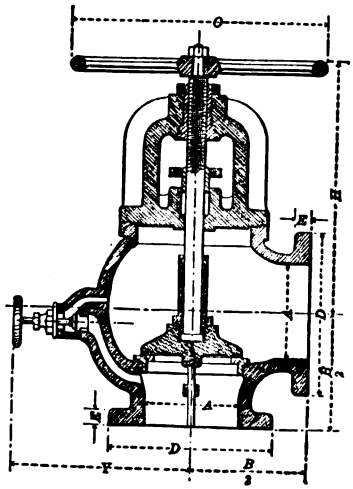

FIG. 643.

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TABLE OF DIMENSIONS

GLOBE, ANGLE AND CROSS VALVES

For 250 Pounds Working Pressure.

A—Size of Run.....inches	2½	3	4	5	6	7	8	10	12	14	15
B—Length, Flange End, Globe .....inches	11½	12½	14	15¾	17½	19¼	21	24½	28	33	33
C Length, Screwed, End Globe.....inches	10⅝	11¾	13	14⅞	16½	18¼	20	23¼	.....	.....	.....
B—Center to Face, Inlet — or Outlet, Flanged 2 End Angle.....inches	5¾	6¼	7	7⅞	8¾	9⅝	10½	12¼	14	16½	16½
C—Center to Face, Inlet — or Outlet, Screwed 2 End, Angle.....inches	5⅜	5⅞	6½	7½	8¼	9⅛	10	11⅝	.....	.....	.....
D—Diameter Fl'ges.....in.	7½	8¼	10	11	12½	14	15	17½	20	22½	23½
E—Thickness Fl'ges...in.	1	1⅛	1¼	1⅜	1 7/16	1½	1⅝	1⅞	2	2⅛	2 3/16
H—Center of Run to Top of Wheel When Closed.....inches	13⅞	15⅝	18¼	20⅛	21½	22	24⅜	26⅝	29⅜	34½	34½
O—Diameter of Wheel in.	9	10	14	15	18	20	24	27	30	36	36
Number of Turns to Open	5	6	6	8	8	9	9	11	14	.....	.....
Size of By-pass.....inches	.....	.....	.....	.....	.....	.....	1½	1½	2	2	2
Y—Center to Outside of By-pass, Angle and Cross .....inches	.....	.....	.....	.....	.....	.....	17½	19⅛	22⅜	23¼	23¼
Z—Center to Outside of By-pass, Globe,.....in.	.....	.....	.....	.....	.....	.....	16⅛	17¾	20¾	21½	21½

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

EXTRA HEAVY BRASS GATE VALVES.

Non-Rising Stem, Wedge Gate, Screwed and Flanged

For 250 Pounds Working Pressure.

GATE VALVE, SCREWED

FIG 644.

No. 66 E.

Gate Valves, Screwed, No. 66 E.

Size.....inches	¼	⅜	1	1¼	1½	2	2½	3
Price.....each	3.75	4.25	5.50	7.75	10.00	15.00	27.50	38.50

Gate Valves Flanged, No. 67 E.

Size.....inches	1	1¼	1½	2	2½	3
Price.....each	11.00	15.00	21.00	28.00	45.00	68.00
Diameter of Flanges..inches	4½	5	6	6½	7½	8½
Face to Face ...inches	$4\frac{3}{16}$	$4\frac{9}{16}$	$5\frac{5}{16}$	$6\frac{3}{16}$	7⅛	$8\frac{3}{16}$

Template for drilling, see page 221.

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EXTRA HEAVY IRON BODY GATE VALVES.

Hard Metal Seats

For 250 Pounds Working Pressure.

GATE VALVE, FLANGED

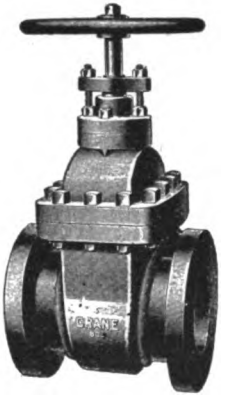

FIG. 645.

No. 3 E.

It is desirable that all Valves 8 inches and larger should have a By-pass. See page 240 for price list.

We do not recommend the use of Screwed End Valves larger than 6 inches.

The construction of these Valves is such that they may be packed when open. To do so have Valve wide open

The Template in the table is in multiples of four, so that Valves or Fittings may be made to face in any quarter and the holes straddle center-line.

We will drill to any other Template if desired.

For further particulars as to Dimensions and Templates, see pages 245, 246 and 221.

These Valves, 8 inches and larger, can be made with ribbed bodies when so ordered, at a special price.

For prices and dimensions, see page 239.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

EXTRA HEAVY IRON BODY GATE VALVES.

Hard Metal Seats.

Screwed and Flanged.

For 250 Pounds Working Pressure.

Gate Valves, Screwed, No. 2 E.

Size ..... inches	1¼	1½	2	2½	3	3½	4
Price ..... each	20.00	22.50	27.50	35.00	40.00	45.00	50.00
End to End ..... inches	6½	7½	8½	9½	11⅛	11⅞	12

Size ..... inches	4½	5	6	7	8	9	10
Price ..... each	60.00	65.00	80.00	100.00	120.00	160.00	200.00
End to End ..... inches	13¼	15	15⅞	16¼	16½	17	18

Gate Valves, Flanged, No. 3 E.

Size ..... inches	1¼	1½	2	2½	3	3½	4	4½	5
Price ..... each	20.00	22.00	27.50	35.00	40.00	45.00	50.00	60.00	65.00
Diameter of Flanges...in.	5	6	6½	7½	8½	9	10	10½	11
Face to Face..in.	6½	7½	8½	9½	11⅛	11⅞	12	13¼	15
Bolt Circle.....in.	3¾	4½	5	5⅞	6⅝	7¼	7⅞	8½	9¼
Size of Bolts...in.	½	⅝	⅝	¾	⅝	⅝	¾	¾	¾
Number of Bolts.	4	4	4	4	8	8	8	8	8

Size ..... inches	6	7	8	9	10	12	14	15	16
Price ..... each	80.00	100.00	120.00	160.00	200.00	300.00	400.00	400.00	550.00
Diameter of Flanges...in.	12½	14	15	16	17½	20	22½	23½	25
Face to Face..in.	15⅞	16½	16½	17	18	19¾	22½	22½	24
Bolt Circle.....in.	10⅝	11⅞	13	14	15¼	17¾	20	21	22½
Size of Bolts...in.	¾	⅞	⅞	⅞	⅞	⅞	⅞	1	1
Number of Bolts.	12	12	12	12	16	16	20	20	20

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EXTRA HEAVY IRON BODY GATE VALVES.

With By-Pass and Hard Metal Seats.

For 250 Pounds Working Pressure.

GATE VALVE, FLANGED.
WITH BY-PASS.

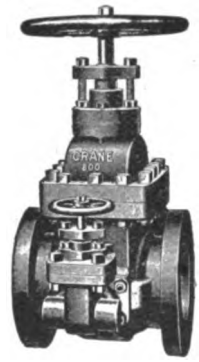

FIG. 646.

No. 5 E.

Gate Valves, Flanged, No. 5 E.

Size.....inches	8	9	10	12	14	15	16
Price.....each	150.00	200.00	250.00	350.00	450.00	450.00	600.00
Diameter of Flanges.....inches	15	16	17½	20	22½	23½	25
Face to Face.....inches	16½	17	18	19¾	22½	22½	24
By Pass.....inches	1½	1½	1½	2	2	2	3
Bolt Circle.....inches	13	14	15¼	17¾	20	21	22½
Size of Bolts.....inches	⅞	⅞	⅞	⅞	⅞	1	1
Number of Bolts.....	12	12	16	16	20	20	20

The construction of these Valves is such that they may be packed when open. To do so have Valve wide open.

It is desirable that all Valves 8 inches and larger should have a By-pass.

The Template in the above table is in multiples of four, so that Valves or Fittings may be made to face in any quarter, and the holes straddle center-line.

We will drill to any other Template if desired.

For further particulars as to Dimensions and Templates, see pages 245, 246 and 221.

These Valves, 8 inches and larger, can be made with ribbed bodies when so ordered, at a special price

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

EXTRA HEAVY IRON BODY GATE VALVES.

With Male, Female, Tongue or Grooved Flanges.

For 250 Pounds Working Pressure.

GATE VALVE,

WITH TONGUE ON THE FACE OF END FLANGES.

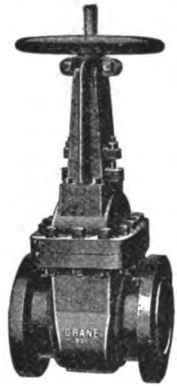

FIG. 647.

Any of the Extra heavy Gate, Globe, Angle, Cross or Check Valves, illustrated on pages 229 to 232 and 238 to 244, will be made to order with Male, Female, Tongue or Grooved End Flanges if desired, at an additional net price as below.

Size.....inches	2½	3	4	5	6	7	8
Add to Valves having 2 Flanges.....Net, each	1.25	1.25	1.25	1.25	1.50	1.50	2.00
Add to Valves having 3 Flanges.....Net, each	1.75	1.75	1.75	1.75	2.00	2.00	2.50

Size.....inches	9	10	12	14	15	16	.....
Add to Valves having 2 Flanges.....Net, each	2.00	2.00	2.50	3.25	3.25	4.00	.....
Add to Valves having 3 Flanges.....Net, each	2.50	2.50	3.00	4.00	4.00	5.00	.....

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EXTRA HEAVY IRON BODY GATE VALVES.

Outside Screw and Yoke and Hard Metal Seats.

For 250 Pounds Working Pressure.

GATE VALVE, FLANGED

FIG. 648.

No. 7 E.

This form of Outside Screw and Yoke is a perfect indicator to show whether Valve is open or shut.

The construction of these Valves is such that they may be packed when open. To do so have Valve wide open.

It is desirable that all Valves 8 inches and larger should have a By-pass. See page 244 for price list.

We do not recommend the use of Screwed End Valves larger than 6 inches.

The Template in the table is in multiples of four, so that Valves or Fittings may be made to face in any quarter, and the holes straddle center-line.

We will drill to any other Template if desired.

For further particulars as to Dimensions and Templates, see pages 245, 246 and 221.

These Valves, 8 inches and larger, can be made with ribbed bodies when so ordered, at a special price.

For prices and dimensions, see page 243.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

EXTRA HEAVY IRON BODY GATE VALVES.

Outside Screw and Yoke and Hard Metal Seats.

Screwed and Flanged.

For 250 Pounds Working Pressure.

Gate Valves, Screwed, No. 6 E.

Size ..... inches	1¼	1½	2	2½	3	3½	4
Price..... each	27.50	30.00	35.00	45.00	50.00	60.00	65.00
End to End..... inches	6½	7½	8½	9½	11⅛	11⅞	12

Size ..... inches	4½	5	6	7	8	9	10
Price..... each	75.00	85.00	105.00	125.00	150.00	200.00	250.00
End to End..... inches	13¼	15	15⅞	16¼	16½	17	18

Gate Valves, Flanged, No. 7 E.

Size..... inches	1¼	1½	2	2½	3	3½	4	4½	5
Price..... each	27.50	30.00	35.00	45.00	50.00	60.00	65.00	75.00	85.00
Diameter of Flanges...in.	5	6	6½	7½	8¼	9	10	10½	11
Face to Face..in.	6½	7½	8½	9½	11⅛	11⅞	12	13¼	15
Bolt Circle.....in.	3¾	4½	5	5¾	6⅝	7¼	7¾	8½	9¼
Size of Bolts...in.	½	⅝	⅝	¾	⅝	⅝	¾	¾	¾
Number of Bolts.	4	4	4	4	8	8	8	8	8

Size..... inches	6	7	8	9	10	12	14	15	16
Price..... each	105.00	125.00	150.00	200.00	250.00	350.00	450.00	450.00	600.00
Diameter of Flanges...in.	12½	14	15	16	17½	20	22½	23½	25
Face to Face...in.	15⅞	16¼	16½	17	18	19¾	22½	22½	24
Bolt Circle.....in	10⅝	11⅞	13	14	15¼	17¼	20	21	22½
Size of Bolts...in.	¾	⅞	⅞	⅞	⅞	⅞	⅞	1	1
Number of Bolts.	12	12	12	12	16	16	20	20	20

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EXTRA HEAVY IRON BODY GATE VALVES.

With By-Pass, Outside Screw and Yoke and Hard Metal Seats.

For 250 Pounds Working Pressure.

GATE VALVE, FLANGED.

WITH BY-PASS AND OUTSIDE SCREW AND YOKE.

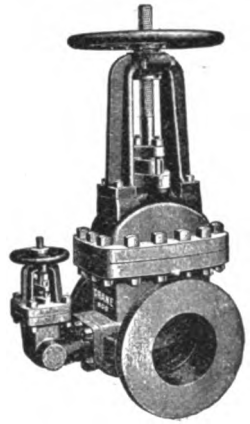

FIG. 649.

No. 9 E.

Gate Valves, Flanged, No. 9 E.

Size..... .....inches	8	9	10	12	14	15	16	18	20	22	24
Price .....each	185.00	240.00	300.00	400.00	500.00	500.00	650.00	850.00	1150.00	1450.00	1850.00
Diam. of Flanges...inches	15	16	17½	20	22½	23½	25	27	29½	31½	34
Face to Face .....inches	16½	17	18	19¾	22½	22½	24	26	28	29½	31
By Pass.....inches	1½	1½	1½	2	2	2	3	3	4	4	4
Bolt Circle...inches	13	14	15¼	17¾	20	21	22½	24½	26¾	28¾	31¼
Size of Bolts, inches	⅞	⅞	⅞	⅞	⅞	1	1	1	1⅛	1⅛	1⅛
Number of Bolts...	12	12	16	16	20	20	20	24	24	28	28

This form of Outside Screw and Yoke is a perfect indicator to show whether Valve is open or shut.

The construction of these Valves is such that they may be packed when open. To do so have Valve wide open.

It is desirable that all Valves 8 inches and larger should have a By-pass.

These Valves can be furnished geared to stand upright or lie on side.

Prices on application.

The Template in the above table is in multiples of four, so that Valves or Fittings may be made to face in any quarter, and the holes straddle center-line.

We will drill to any other Template if desired.

For further particulars as to Dimensions and Templates, see pages 245, 246 and 221.

These Valves, 8 inches and larger, can be made with ribbed bodies when so ordered, at a special price.

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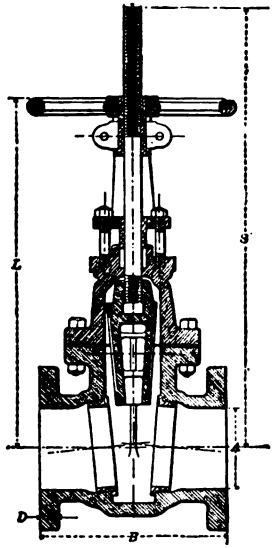
THE W. M. PATTISON SUPPLY CO. CLEVELAND

GATE VALVES.

For 250 Pounds Working Pressure



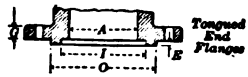


FIG. 650.

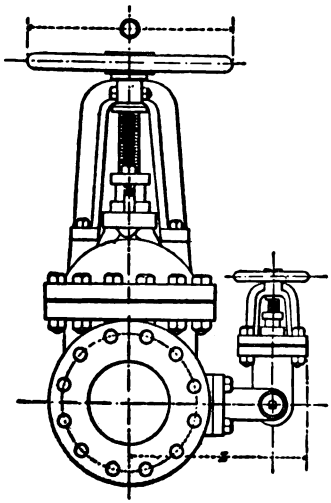
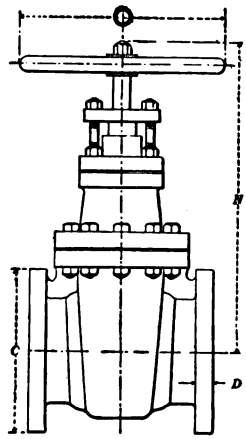


FIG. 651.



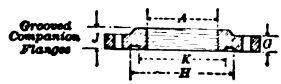


FIG 652.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TABLE OF DIMENSIONS
GATE VALVES.

For 250 Pounds Working Pressure.

A—Size of Run.....inches	1¼	1½	2	2½	3	3½	4	4½	5	6	7
B—Face to Face, Flanged End Valves, in.	6½	7½	8½	9½	11⅛	11⅞	12	13½	15	15⅞	16¼
C—Diameter of Fl'ges..in.	5	6	6½	7½	8½	9	10	10½	11	12½	14
D—Thickness of Fl'ges in.	⅞	⅞	⅞	1	1⅛	1 3/16	1¼	1 5/16	1⅜	1 7/16	1½
Number of Turns to Open	10	11	10	13	14	16	18	21	23	28	30
L—Center of Port to Top of Wheel..in.	10¼	10⅝	12	15⅜	17¾	18½	20½	22¼	24	27	30
S—Center of Port to Top of Spindle When Open .....inches	12½	12 3/4	14⅜	18⅞	21½	22 3/4	25	27¾	29⅞	34	37¾
N—Cen. of Port to Top of Spindle, in.	11	11¾	12½	15¾	17½	18	20	21	22	25	27
O—Diameter of Wheel.....inches	5½	6½	7½	9	10	10	12	12	14	15	18
Size By-pass Valve.....in.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Face to Face, Screw End Valves.....in.	6½	7½	8½	9½	11⅛	11⅞	12	13½	15	15⅞	16¼
Z—Cen. of Run to Outside of By-pass, in.	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....

A—Size of Run.....inches	8	9	10	12	14	15	16	18	20	22	24
B—Face to Face, Flanged End Valves, in.	16½	17	18	19¾	22½	22½	24	26	28	29½	31
C—Diameter of Fl'ges..in.	15	16	17½	20	22½	23¼	25	27	29½	31½	34
D—Thickness of Fl'ges..in.	1⅛	1¾	1⅞	2	2⅛	2 3/16	2¼	2⅜	2½	2⅝	2¾
Number of Turns to Open	34	40	39	46	52	52	60	67	74	82	88
L—Center of Port to Top of Wheel...in.	34	38	40⅝	46¼	54⅜	54⅜	60	65⅝	70¼	77½	83
S—Center of Port to Top of Spindle, When Open .....inches	42⅝	48	51⅝	59½	69¼	69½	77	84⅝	91⅝	101	108¼
N—Cen. of Port to Top of Spindle....in.	29½	32½	35	39	45	45	.....	.....	.....	.....	.....
O—Diameter of Wheel.....inches	20	20	22	24	24	24	27	30	30	36	36
Size By-pass Valve..inches	1½	1½	1½	2	2	2	3	3	4	4	4
Face to Face, Screw End Valves...inches	16½	17	18	.....	.....	.....	.....	.....	.....	.....	.....
Z—Cen. of Run to Outside of By-pass, in.	16⅝	16½	17⅛	21	22	22	24¾	26⅝	31⅝	32⅜	33½

Valve Flanges with Tongue and Companion Flanges with Groove.

I—Inside Diam. of Tongue...in.	3⅛	3⅝	4⅛	4¾	5⅛	5¾	6⅛	7½	8⅝	9⅝
O—Outside Diam.of Tongue,in.	4⅛	4⅝	5⅛	5¾	6⅛	6¾	7¼	8½	9⅝	10¾
E—Thickness of Tongue.....in.	3/16	3/16	3/16	3/16	3/16	3/16	3/16	3/16	3/16	¼
H—Outside Diam.of Groove,in.	4 3/16	4 1/16	5 5/16	5 3/16	6 5/16	6 3/16	7 5/16	8 3/16	9 1/16	10 5/16
K—Inside Diam. of Groove..in.	3 1/16	3 9/16	4 3/16	4 1/16	5 3/16	5 1/16	6 3/16	7 1/16	8 9/16	9 9/16
Depth of Groove.....inches	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	3/16	3/16
J—Thickness of Hub.....inches	1⅜	1 7/16	1 9/16	1⅝	1¾	1 13/16	1⅞	2	2 1/16	2 3/16
G—Thickness of Flange.....in.	⅞	1	1⅛	1 3/16	1¼	1 5/16	1⅜	1 7/16	1½	1⅝

I—Inside Diam. of Tongue..in.	10⅝	11⅝	13⅝	15⅞	17⅛	18⅜	20⅜	22 5/16	24⅛	26⅛
O—Outside Diam.of Tongue,in.	11⅛	13⅜	15¼	17⅜	18⅝	20⅛	22⅜	24 5/16	26½	28½
E—Thickness of Tongue.....in.	¼	¼	¼	¼	¼	¼	¼	¼	¼	¼
H—Outside Diam. of Groove,in.	11 5/16	13 3/16	15 3/16	17 7/16	18 11/16	20 3/16	22 7/16	24⅜	26 9/16	28 9/16
K—Inside Diam. of Groove..in.	10 9/16	11 9/16	13 9/16	15 3/16	17 1/16	18 5/16	20 5/16	22¼	24 7/16	26 7/16
Depth of Groove.....inches	3/16	3/16	3/16	3/16	3/16	3/16	3/16	3/16	3/16	3/16
J—Thickness of Hub.....inches	2¼	2⅜	2 7/16	2 11/16	2 13/16	2 15/16	3 1/16	3⅛	.....	.....
G—Thickness of Flange.....in.	1¾	1⅞	2	2⅛	2 3/16	2¼	2⅜	2½	2⅝	2¾

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THE W. H. PATTISON SUPPLY CO. CLEVELAND

PRICE FOR DRILLING MEDIUM AND EXTRA HEAVY FLANGED VALVES.

Size. Inches.	Price, Drilling Valves with 2 Flanges except Angle Valves. Each.	Price, Drilling Angle Valves. Each.	Price, Drilling Cross Valves. Each.
1	60	1.00	.....
1¼	.60	1.00	.....
1½	.60	1.00	.....
2	.75	1.25	1.50
2½	.75	1.25	1.50
3	.75	1.25	1.50
3½	1.00	1.50	2.00
4	1.25	1.75	2.50
4½	1.50	2.00	3.00
5	1.50	2.00	3.00
6	1.75	2.50	3.50
7	2.25	3.00	4.50
8	2.25	3.00	4.50
9	2.50	3.50	5.00
10	2.50	3.50	5.00
12	3.50	5.00	7.00
14	4.00	6.00	8.00
15	4.00	6.00	8.00
16	5.00	7.00	.....
18	6.00	.....	.....
20	7.50	.....	.....
22	9.00	.....	.....
24	10.00	.....	.....
30	12.00	.....	.....

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RENSSELAER EXTRA HEAVY IRON BODY GATE VALVES.

Outside Screw and Yoke: Screwed and Flanged.

For 250 Pounds Working Pressure.

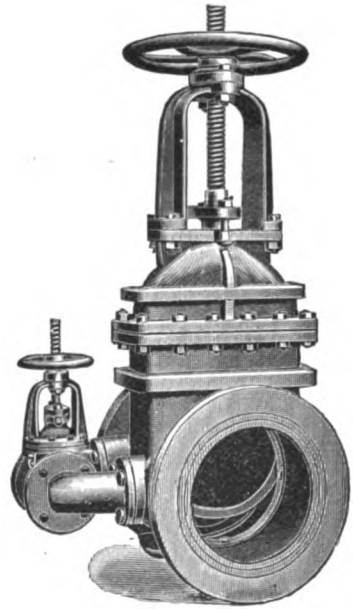

FIG. 653.

Size.....inches	2	2½	3	3½	4	5	6	7	8	10	12
End to End.....inches	4 7/8	5 3/8	6 3/8	7	8½	10½	11 5/8	11 7/8	13	14	14¼
Price.....each	ON APPLICATION.										

Size.....inches	2	2½	3	3½	4	5	6	7	8	10	12
Diam. of Flange....in.	6½	7½	9	9	10	11	13	14	15	17½	20
Face to Face.....inches	8	8½	8½	10½	11	12½	13	13½	14	14½	15
Price.....each	ON APPLICATION.										

Dimensions are for Valves without By-Pass.

All parts of these Valves are made interchangeable. The Seats are made of hard Government Bronze Steam Metal or Phosphor Bronze. Flanges, either plain, tongued and grooved, or recessed. Heavy companion flanges to suit will be furnished bolted on if required.

When ordering or requesting quotations, SPECIFY THE WORKING PRESSURE under which the Valves are to be used.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 249

EXTRA HEAVY IRON BODY EXPANSION JOINTS.

With Tie Rods and Brass Sleeve

Screwed and Flanged.

For 250 Pounds Working Pressure.

FLANGED.

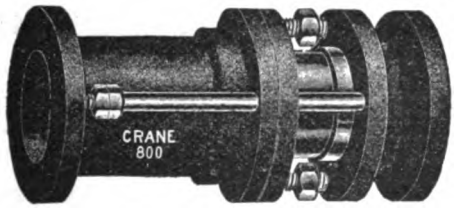

FIG. 654.

No. 49 E.

Expansion Joints, Standard Traverse, Screwed, No. 48 E.

Size.....inches	4	5	6	7	8	9	10	12
Price.....each	70.00	80.00	100.00	120.00	145.00	190.00	240.00	290.00
Traverse.....inches	3¼	4	5	6	7	7	7	8

Expansion Joints, Standard Traverse, Flanged, No. 49 E.

Size..inches	4	5	6	7	8	9	10	12	14	15
Price...each	75.00	85.00	105.00	125.00	150.00	200.00	250.00	300.00	500.00	500.00
Dim. of Flask, in.	10	11	12½	14	15	16	17½	20	22½	23½
Traverse...inches	3½	4	5	6	7	7	7	8	10	10

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EXTRA HEAVY HYDRAULIC MALLEABLE IRON ELBOWS, TEES AND CROSSES.

For 800 Pounds Working Pressure.

ELBOW

FIG 655.
No. 260 H.

TEE.

FIG 656.
No. 264 H.

Size .....inches	¼	⅜	½	¾	1	1¼	1½
Price, No 260 H Elbows..each	.20	.25	.30	.35	.40	.55	.70
Price, No. 264 H Tees.....each	.30	.40	.45	.50	.60	.80	1.05
Price, No. 266 H Crosses..each	.60	.80	.90	1.00	1.20	1.60	2.10

Size .....inches	2	2½	3	3½	4	5	6
Price, No. 260 H Elbows..each	90	1.50	2.40	3.25	4.25	6.50	9.50
Price, No. 264 H Tees.....each	1.35	2.25	3.60	5.00	6.50	9.75	14.25
Price, No. 266 H Crosses..each	2.70	4.50	7.20	10.00	13.00	19.50	28.50

Reducing size will be furnished from Cast Iron Reducing Patterns. Straight sizes can be furnished from these patterns if desired. These are made to order only.

EXTRA HEAVY HYDRAULIC BRASS FITTINGS.

For 800 Pounds Working Pressure.

FIG. 657.
No. 270 H.

FIG 658.
No. 272 H.

Size .....inches	⅜	½	¾	1	1¼	1½	2	2½	3
Price, Elbows, No. 270 H.....each	.28	.36	.70	1.00	1.50	2.00	3.00	5.50	8.50
Price, Tees, No. 272 H.....each	.40	.65	1.00	1.35	2.00	3.00	4.50	7.50	11.00
Price, Crosses, No. 274 H.....each	.....	.90	1.30	1.80	2.75	4.00	5.25	9.00	14.00
Price, Couplings, No. 276 H..each	.35	.50	.90	1.25	1.90	2.50	3.75	7.00	10.50

Reducing sizes made to order only.

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THE W. M. PATTISON SUPPLY CO. 251 CLEVELAND

EXTRA HEAVY HYDRAULIC CAST IRON FLANGED ELBOWS, TEES AND CROSSES.

For 800 Pounds Working Pressure.

THESE FITTINGS ARE MADE MALE OR FEMALE.

FOR USE ON

High Pressure Water or Oil Pumping Lines, Etc.

ELBOW.

FIG. 659.

Made to order only.

TEE.

FIG. 660.

Prices on application.

Template for drilling, see page 252.

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EXTRA HEAVY HYDRAULIC COMPANION FLANGES.

Malleable Iron, Male or Female.

For 800 Pounds Working Pressure.

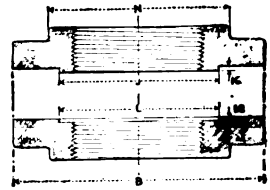

FIG. 661.

No. 251 H.

Size.....inches	1½	2	2½	3	4	5	6	7	8	9	10	12
Price, Faced .....each	1.70	1.80	2.50	3.20	3.90	4.60	6.50	7.50	8.40	10.25	13.00	20.00
Price, Faced and Drilled.....each	1.85	2.00	2.75	3.50	4.25	5.00	7.00	8.00	9.00	11.00	14.00	22.50

Dimensions.

Size of Run.....inches	1½	2	2½	3	4	5	6	7	8	9	10	12
B—Diameter of Flange.....inches	6½	7½	8¾	10	11½	13½	15	16	17	18½	21	23½
L—Diameter of Female.....inches	3 3/16	3 1/16	4 3/16	5 1/16	6 1/16	7 5/16	8 7/16	9 7/16	10 11/16	11 11/16	12 13/16	15 5/16
M—Depth of Female.....inches	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜
J—Diameter of Male.....inches	3⅛	3⅝	4⅛	5	6	7¼	8⅜	9⅜ 3/16	10⅝ 3/16	11⅝ 3/16	12¼ 3/16	15¼ 3/16
K—Thickness of Male.....inches	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	¼ 1/16	¼ 1/16	¼ 1/16
N—Diameter of Hub.....inches	3¼	3¾	4¼	4⅞	6	7¼	8⅜	9½	10⅝	11⅝	13	15¼
Diameter of Bolt Circle.....inches	5	5¼	6½	8	9⅜	11	12½	13⅜	14⅛	15½	17¾	20⅜
Number of Bolts.....	4	4	8	8	8	12	12	16	16	16	20	20
Size of Bolts .....inches	⅝	¾	¾	¾	1	1	1⅛	1⅛	1¼	1¼	1¼	1⅜
Diameter of Bolt Hole..... inches	¾	⅞	⅞	⅞	1⅛	1⅛	1¼	1¼	1⅜	1⅜	1⅜	1½

In ordering, state whether male or female is wanted.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 253

EXTRA HEAVY HYDRAULIC GLOBE AND GATE VALVES.

Hard Metal, with Gland.

For 800 Pounds Working Pressure.

GLOBE VALVE.

FIG. 662.

No. 232 H. .

WEDGE GATE VALVE, NON-RISING STEM.

FIG. 663.

No. 230 H.

Globe, Valves, No. 232.

Size .....inches	⅜	½	¾	1	1¼
Price.....each	6.00	6.00	7.00	9.00	13.00

Wedge Gate Valves, No. 230 H.

Size.....inches	½	¾	1	1¼
Price.....each	7.50	8.50	11.00	15.50
End to End.....inches	2¾	3⅛	3⅝	4⅛

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

EXTRA HEAVY HYDRAULIC CHECK VALVES.

Hard Metal.

For 800 Pounds Working Pressure.

CHECK VALVE.

FIG. 664.

No. 234 H.

Check Valves, No. 234 H.

Size.....inches	⅜	½	¾	1	1¼
Price.....each	5.00	5.00	6.00	8.00	11.00

EXTRA HEAVY HYDRAULIC UNIONS, BRASS AND MALLEABLE IRON.

For 800 Pounds Working Pressure.

BRASS UNION.

FIG. 665.

No. 240 H.

FLANGE UNION.
MALE AND FEMALE FACE.

FIG. 666.

No. 241 H.

Brass Unions, No. 241 H.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2
Price.....each	1.25	1.50	2.00	3.00	4.00	5 00	7.00	10.00

Malleable Iron Flange Unions, No. 241 H.

Size.....inches	1	1¼	1½	2	2½	3
Price.....each	1.50	1.75	2.25	3.00	6.00	9.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

EXTRA HEAVY IRON BODY HYDRAULIC WEDGE GATE VALVES.

Non-Rising Stem, Hard Metal Seats.

Screwed and Flanged, With and Without By-Pass.

For 800 Pounds Working Pressure.

GATE VALVE, SCREWED.

FIG. 667.

No. 204 H.

Gate Valves, Screwed, No. 204 H.

Size ..... inches	1½	2	2½	3	4	5	6
Price ..... each	16.00	19.00	35.00	50.00	70.00	95.00	150.00
End to End ..... inches	10	11½	13½	14½	16½	18½	20

Gate Valves, Flanged, No. 205 H.

Size ..... inches	1½	2	2½	3	4	5	6	7	8	9	10
Price ..... each	16.00	19.00	35.00	50.00	70.00	95.00	150.00	175.00	200.00	250.00	300.00
Diam. of Flanges .... in.	6½	7½	8¾	10	11½	13½	15	16	17	18½	21
Face to Face ..... inches	10	11½	13½	14½	16½	18½	20	21½	23	24½	26½

Gate Valves, Flanged, With By-Pass, No 207 H.

Size ..... inches	6	7	8	9	10
Price ..... each	170.00	200.00	225.00	280.00	350.00
Diameter of Flanges ..... inches	15	16	17	18½	21
Face to Face ..... inches	20	21½	23	24½	26½
By-Pass ..... inches	1¼	1¼	1½	1½	1½

It is desirable that all Valves 6 inches and larger should have a By-pass.

We do not recommend the use of Screwed End Valves larger than 6 inches.

Valves for a higher working pressure than 800 pounds, or larger sizes, made to order. Prices on application.

For further dimensions, see pages 258 and 259. Template for drilling, see page 252.

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EXTRA HEAVY IRON BODY HYDRAULIC WEDGE GATE VALVES.

Outside Screw and Yoke, Hard Metal Seats
Screwed and Flanged, With and Without By-Pass.
For 800 Pounds Working Pressure.

GATE VALVE, SCREWED.

FIG. 668.

No. 200 H.

Gate Valves, Screwed, No. 200 H.

Size.....inches	1½	2	2½	3	4	5	6
Price.....each	24.00	27.00	45.00	60.00	80.00	110.00	170.00
End to End.....inches	10	11½	13½	14½	16½	18½	20

Gate Valves, Flanged, No. 201 H.

Size .....inches	1½	2	2½	3	4	5	6	7	8	9	10
Price.....each	24.00	27.00	45.00	60.00	80.00	110.00	170.00	200.00	225.00	275.00	325.00
Diam, of Fl'ges.....in.	6½	7½	8¾	10	11½	13½	15	16	17	18½	21
Face to Face.....inches	10	11½	13½	14½	16½	18½	20	21½	23	24½	26½

Gate Valves, Flanged, With By-Pass, No. 203 H.

Size.....inches	6	7	8	9	10
Price.....each	190.00	225.00	250.00	310.00	375.00
Diameter of Flanges.....inches	15	16	17	18½	21
Face to Face.....inches	20	21½	23	24½	26½
By-Pass.....inches	1¼	1¼	1½	1½	1½

It is desirable that all Valves 6 inches and larger should have a By-pass.

We do not recommend the use of Screwed End Valves larger than 6 inches.

Valves for a higher working pressure than 800 pounds, or larger sizes, made to order. Prices on application.

For further dimensions, see pages 258 and 259. Template for drilling, see page 252.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 257

EXTRA HEAVY IRON BODY HYDRAULIC SWING CHECK VALVES.

Hard Metal Seats.

Screwed and Flanged.

For 800 Pounds Working Pressure.

CHECK VALVE, FLANGED.

FIG. 669.

No. 221 H.

Swing Check Valves, Screwed, No. 220 H.

Size.....inches	2½	3	4	5	6	7	8	10
Price.....each	30.00	40.00	55.00	75.00	110.00	150.00	190.00	240.00
End to End.....inches	12	13½	15½	17½	19	21	24½	26½

Swing Check Valves, Flanged, No. 221 H.

Size.....inches	2½	3	4	5	6	7	8	10
Price.....each	30.00	40.00	55.00	75.00	110.00	150.00	190.00	240.00
Diam. of Flanges..inches	8¾	10	11½	13½	15	16	17	21
Face to Face.....inches	12½	14	16	18	20	22	26	30

For further dimensions, see page 260.

Templates for drilling, see page 260.

Valves for a higher working pressure than 800 pounds, or larger sizes, made to order. Prices on application.

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EXTRA HEAVY HYDRAULIC GATE VALVES.

For 800 Pounds Working Pressure

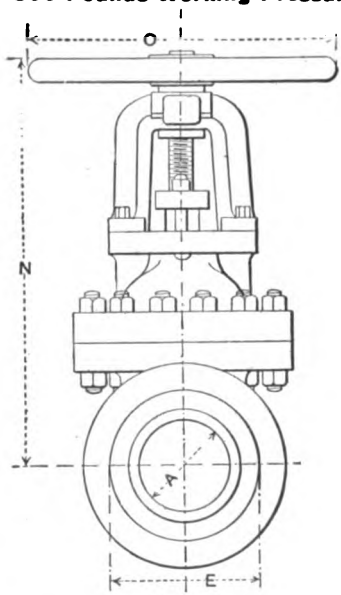

FIG. 670

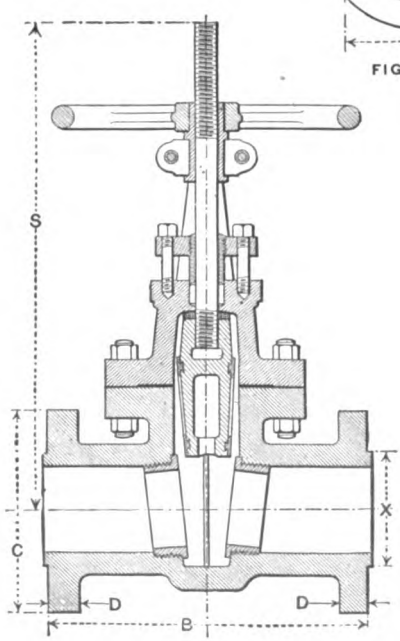

FIG. 671.

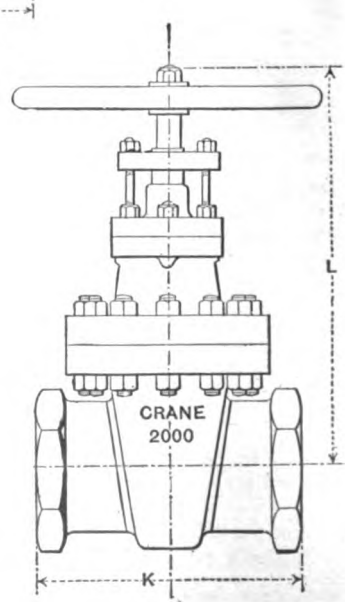

FIG. 672.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TABLE OF DIMENSIONS

GATE VALVES.

For 800 Pounds Working Pressure.

A—Size of Run.....inches	1½	2	2½	3	4	5
B—Face to Face Flanged End Valves..inches	10	11½	13½	14½	16½	18½
K—Face to Face Screwed End Valves..inches	10	11½	13½	14½	16½	18½
C—Diameter of Flanges.....inches	6½	7½	8¾	10	11½	13½
D—Thickness of Flanges.....inches	1⅛	1¼	1⅜	1 9/16	1 11/16	1⅞
E—Diameter of Bolt Circle.....inches	5	5¾	6½	8	9⅜	11
Size of By-Pass Valve.....inches	.....	.....	.....	.....	.....	.....
L—Center of Run to Top of Wheel....inches	11¾	13½	15¼	17	19½	23⅜
S—Center of Run to Top of Spindle when open .....inches	14⅞	17⅜	19¾	22½	27	31½
N—Center of Run to Top of Spindle when closed.....inches	13	15	16⅞	18¾	22½	26
O—Diameter of Wheel.....inches	7½	10	12	14	15	18
Number of Turns to Open.....inches	9¼	9¼	11½	14	18	22½
Thickness of Tongue.....inches	3/16	3/16	3/16	3/16	3/16	3/16
X—Diameter of Tongue.....inches	3⅛	3⅝	4⅛	5	6	7¼
Center of Run to Outside of By-Pass..inches	.....	.....	.....	.....	.....	.....

A—Size of Run.....inches	6	7	8	9	10	12
B—Face to Face Flanged End Valves..inches	20	21½	23	24½	26½	29½
K—Face to Face Screwed End Valves..inches	20	21½	23	24½	26½	29½
C—Diameter of Flanges..... .....inches	15	16	17	18½	21	23½
D—Thickness of Flanges.....inches	2 1/16	2⅛	2⅜	2 9/16	2⅝	3⅛
E—Diameter of Bolt Circle.....inches	12½	13⅜	14⅛	15½	17¼	20⅜
Size of By-Pass Valve.....inches	1¼	1¼	1½	1½	1½	2
L—Center of Run to Top of Wheel.....inches	25⅛	28½	30½	32½	35½	40½
S—Center of Run to Top of Spindle when open.....inches	35¼	40½	44⅛	48¾	53¾	62⅜
N—Center of Run to Top of Spindle when closed.....inches	28¾	32⅞	36½	39	42⅞	49½
O—Diameter of Wheel.....inches	20	22	24	24	27	30
Number of Turns to Open.....inches	26½	27⅛	30⅝	34¼	38	45
Thickness of Tongue.....inches	3/16	¼	¼	¼	¼	¼
X—Diameter of Tongue.....inches	8¼	9⅜	10⅝	11⅝	12¾	15¼
Center of Run to Outside of By-Pass...inches	15⅜	16	18½	19½	20¼	24

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EXTRA HEAVY HYDRAULIC SWING CHECK VALVES.

For 800 Pounds Working Pressure.

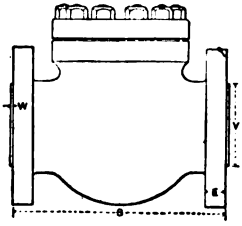

FIG. 673.

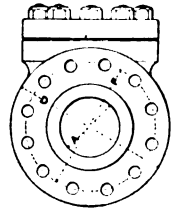

FIG. 674.

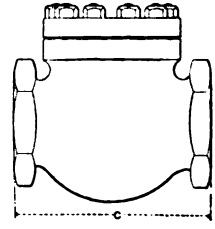

FIG. 675

TABLE OF DIMENSIONS

HEAVY HYDRAULIC SWING CHECK VALVES.

A—Size of Run.....inches	2½	3	4	5	6	7	8	10
B—Face to Face, Flanged end Valves.....in.	12½	14	16	18	20	22	26	30
C—Face to Face, Screw End Valves .....inches	12	13½	15½	17½	19	21	24½	26½
D—Diameter of Flanges.....inches	8¾	10	11½	13½	15	16	17	21
E—Thickness of Flanges.....inches	1 3/16	1 3/16	1 1/16	1 7/8	2 1/16	2¼	2 3/8	2 3/4
F—Diameter of Bolt Circle.....inches	6½	8	9¾	11	12½	13⅜	14⅛	17¾
Number of Bolts.....	8	8	8	12	12	16	16	20
Size of Bolt.....inches	¾	¾	1	1	1⅛	1⅛	1¼	1¼
Size of Bolt Hole.....inches	¾	⅞	1⅛	1⅛	1¼	1¼	1⅜	1⅜
V—Diameter of Tongue.....inches	4¼	5	6	7¼	8⅜	9⅜	10⅝	12¾
W—Height of Tongue.....inches	3/16	3/16	3/16	3/16	3/16	¼	¼	¼

The length, face to face, of Male or Female Flanged Valves is the same as plain faced Flanged Valves, the measurements being from face of Flange and not from tongue or recess.

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STEAM SPECIALTIES.

STEAM JOINT CLAMPS.

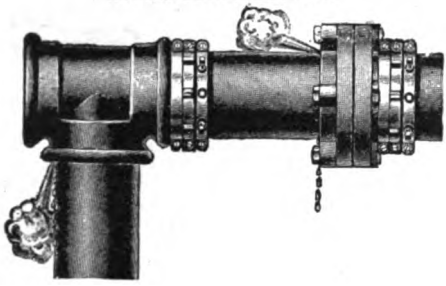

FIG. 676.

BRASS SWING JOINTS.

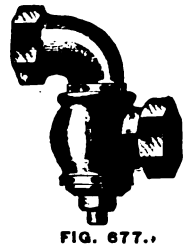

FIG. 677.

Steam Joint Clamps.

Size .....inches	¾	1	1¼	1½	2	2½	3	3½	4	4½	5
Price.....each	1.50	1.50	1.90	2.25	3.00	3.75	4.50	5.25	6.00	6.75	7.50

Size .....inches	6	7	8	9	10	12	14	15	16	18	20
Price.....each	9.00	10.50	13.00	15.75	18.75	22.50	31.50	33.75	36.00	40.50	45.00

Brass Swing Joints.

Size.....inches	½	¾	1	1¼	1½	2
Price, Rough.....each	2.50	3.50	5.00	6.50	9.00	13.00
Price, Finished.....each	3.00	4.00	5.75	7.25	10.00	15.00

Cast Iron Flexible Joints.

FOR STEAM, AIR AND GAS.

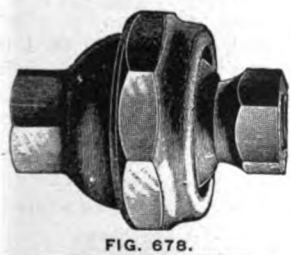

FIG. 678.

FOR LIQUIDS.

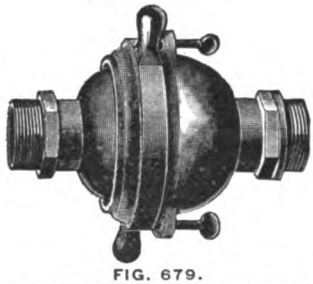

FIG. 679.

Size.....inches	⅜	½	¾	1	1¼	1½	2	2½	3	4	5	6
Price.....each	3.00	3.25	3.75	4.25	5.25	6.00	7.50	9.00	11.25	15.00	18.75	25.00

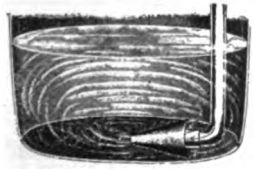

FIG. 680.

Noiseless Steam Water Heaters.

Size..inches	⅜	½	¾	1
Price...each	1.75	2.00	2.50	3.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

AIR COCKS.

TEE HANDLE

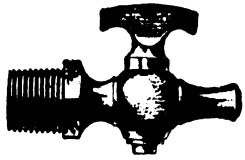

FIG. 681.

LEVER HANDLE.

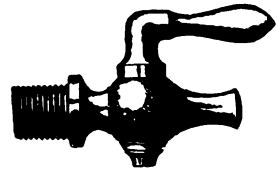

FIG. 682.

Size .....inches	1/8	1/4	3/8	1/2	Size .....inches	1/8	1/4	3/8	1/2
Price.....each	.40	.45	.50	.60	Price.....each	.55	.60	.65	.75

Bibb End.

TEE HANDLE.

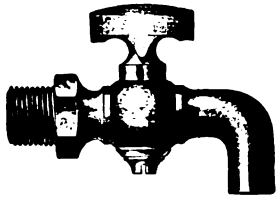

FIG. 683

LEVER HANDLE.

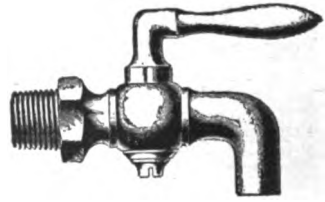

FIG. 684.

Size .....inches	1/8	1/4	3/8	1/2	Size ..... inches	1/8	1/4	3/8	1/2
Price.. .....each	.70	.80	.90	1.00	Price .....each	.85	.95	1.05	1.15
Price, Double Thread, ea.	.80	1.00	1.10	1.35	Price, Double Thread, ea.	.95	1.15	1.25	1.50

Blank End for Soldering.

TEE HANDLE.

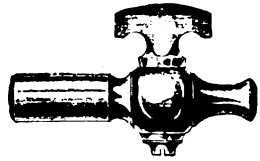

FIG. 685.

Size.....inches	1/8	1/4	3/8
Price.....each	.60	.65	.80
Price, Lever Handle.....each	.75	.80	.95

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AIR COCKS, DOUBLE THREAD.

THE W. M. PATTISON SUPPLY CO. CLEVELAND

TEE HANDLE, MALE.

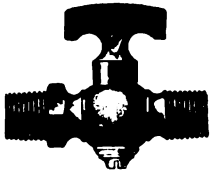

FIG. 686.

LEVER HANDLE, MALE.

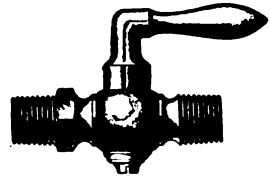

FIG 687.

Size..... inches	1/8	1/4	3/8	1/2	Size.... .....inches	1/8	1/4	3/8	1/2
Price..... each	.55	.65	.75	.90	Price..... each	.70	.80	.90	1.05

TEE HANDLE, FEMALE

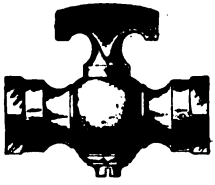

FIG. 688.

LEVER HANDLE, FEMALE

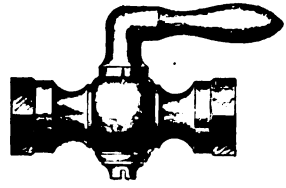

FIG. 689.

Size..... inches	1/8	1/4	3/8	Size..... inches	1/8	1/4	3/8
Price ..... each	.75	.85	.95	Price..... each	.90	1.00	1.10

TEE HANDLE, MALE AND FEMALE.

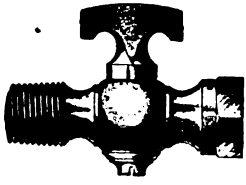

FIG. 690.

LEVER HANDLE, MALE AND FEMALE.

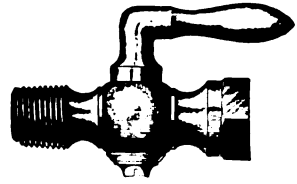

FIG. 691

Size..... inches	1/8	1/4	3/8	Size..... .....inches	1/8	1/4	3/8
Price. .....each	.75	.85	.95	Price ....each	.90	1.00	1.10

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CYLINDER COCKS.

TEE HANDLE.

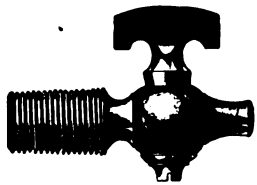

FIG. 692

LEVER HANDLE.

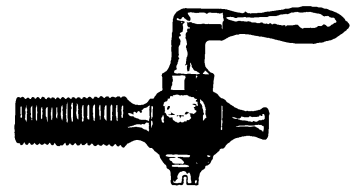

FIG. 693.

Size .....inches	1/8	1/4	3/8	1/2	Size ..... inches	1/8	1/4	3/8	1/2
Price.....each	.70	.80	.90	1.20	Price .....each	.85	.95	1.05	1.35

LEVER HANDLE, BIBB END.

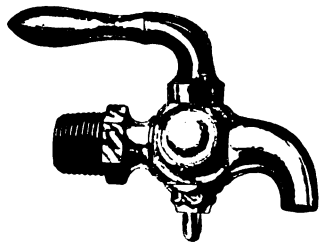

FIG. 694.

LEVER HANDLE, BIBB END.

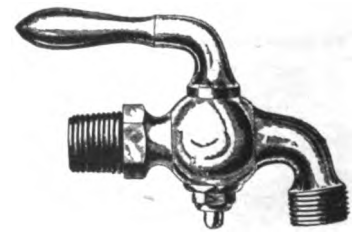

FIG. 695.

Size .....inches	1/4	3/8	1/2	3/4	Size ..... inches	1/4	3/8	1/2	3/4
Price.....each	1.15	1.30	1.85	2.60	Price .....each	1.25	1.50	2.10	2.70
Price, Tee Handle ..each	1.00	1.15	1.60	2.35	Price, Tee Handle....each	1.10	1.35	1.85	2.45

FOR TRACTION ENGINES.

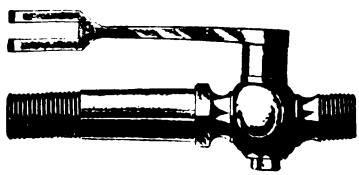

FIG. 696.

WITH UNION.

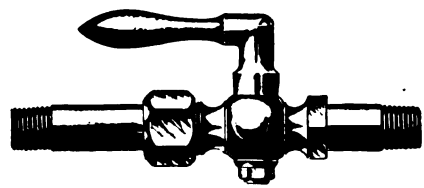

FIG. 697.

Size .....inches	1/8	1/4	3/8	1/2	Size ..... inches	1/8	1/4	3/8	1/2
Size, Blank Shank...inches	3/8	1/2			Price, T. H., M. E..each	1.35	1.60	1.85	2.35
Price, Short Shank, each	1.15	1.30	1.40	1.85	Price, L. H., M. E..each	1.50	1.75	2.00	2.50
Price, with Union...each	1.70	1.80	1.95	2.20	Price, T. H., F. E..each	1.60	1.75	1.85	.....
Price, Long Shank..each	1.45	1.55	1.70	2.20	Price, L. H., F. E..each	1.75	1.90	2.00	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 265

STEAM GAUGE COCKS.

TEE HANDLE, FEMALE.

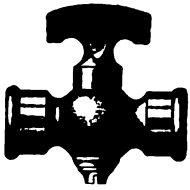

FIG. 698.

Size..... inches	¼
Price ..... each	.70

LEVER HANDLE, FEMALE.

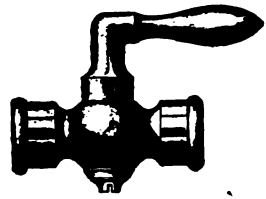

FIG. 699.

Size..... inches	¼
Price..... each	.85

TEE HANDLE, MALE AND FEMALE

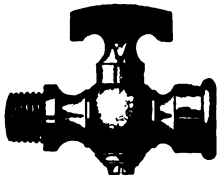

FIG. 700.

Size..... inches	¼
Price ..... each	.80

LEVER HANDLE, MALE AND FEMALE.

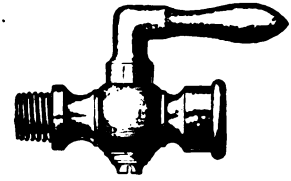

FIG. 701.

Size..... inches	¼
Price..... each	.95

TEE HANDLE, WITH UNION.

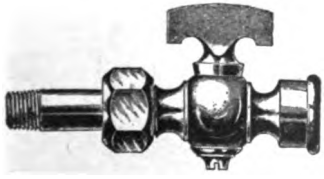

FIG. 702.

Size..... inches	¼
Price ..... each	1.75

LEVER HANDLE, WITH UNION

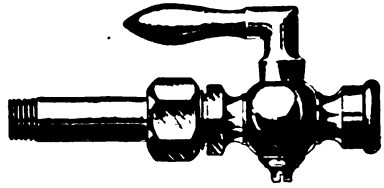

FIG. 703.

Size..... inches	¼
Price..... each	1.90

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STEAM GAUGE, SIPHONS.

STRAIGHT.

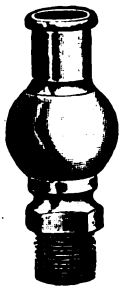

FIG. 704.

Size..... ... inches	¼
Price.....each	1.00
Price, Nickel Plated.....each	1.50

STRAIGHT, WITH COCK.

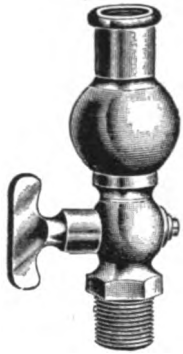

FIG. 705.

Size..... ....inches	¼
Price.....each	1.50
Price, Nickel Plated ..... each	2.00

ELBOW.

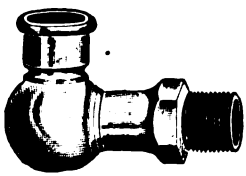

FIG. 706.

Size..... inches	¼
Price.....each	1.25
Price, Nickel Plated.....each	1.75

ELBOW, WITH COCK.

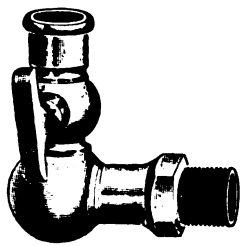

FIG. 707.

Size..... inches	¼
Price..... .....each	1.50
Price, Nickel Plated..... each	2.00

COIL

FIG. 708.

Size.....inches	¼
Price, Iron.....each	.50
Price, Brass..... .....each	1.80
Price, Brass, Nickel Plated.....each	2.00

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GAUGE COCKS.

THE W. M. PATTISON SUPPLY CO. CLEVELAND

COMPRESSION, PLAIN.

FIG. 709.

Size ..... inches	3/8	1/2	3/4
Price, Light Pattern...in.	.95	1.00	1.25
Price, Standard Pattern, inches	1.10	1.20	1.35

COMPRESSION, STUFFING BOX.

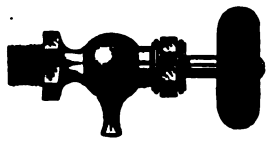

FIG. 710.

Size ..... inches	3/8	1/2	3/4
Price, Light Pattern...in.	1.20	1.30	1.45
Price, Standard Pattern, inches	1.35	1.50	1.70

COMPRESSION, REGRINDING.

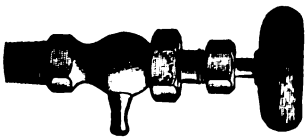

FIG. 711.

Size ..... inches	1/4	3/8	1/2	3/4
Price ..... each	.90	1.05	1.30	1.80

MISSISSIPPI.

FIG. 712.

Size ..... inches	3/8	1/2	3/4	1
Blank Shank, inches	3/8	1/2	3/4	1
Price ..... each	.90	1.20	1.50	1.80

BALL.

FIG. 713.

Size ..... inches	3/8	1/2	3/4
Price ..... each	1.00	1.00	1.00

SELF GRINDING, ROTATING.

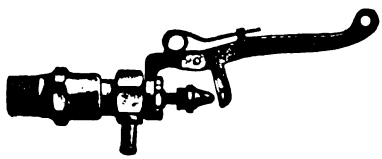

FIG 714

Size ..... inches	3/4	1
Blank Shank ..... inches	3/4	1
Price ..... each	2.50	2.50

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GAUGE COCKS.

IMPROVED BALL GAUGE COCK, FOR 200 POUNDS PRESSURE.

FIG. 715.

IMPROVED, SELF-CLOSING, GAUGE COCK, FOR HIGH PRESSURE.

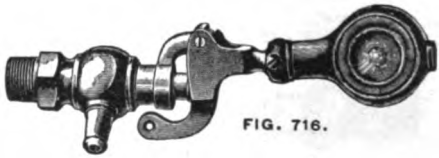

FIG. 716.

Improved Ball Gauge Cocks.

Size.....inches	⅜	½	¾
Price.....each	1.50	1.50	1.50

Improved Self-Closing Gauge Cocks.

Size.....inches	½	¾
Price.....each	2.00	2.00
Price, Nickel Plated.....each	2.75	2.75

SAFETY AUTOMATIC SIPHON GAUGE COCK, FOR HIGH PRESSURE.

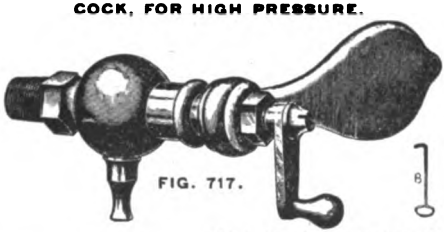

FIG. 717.

SECTIONAL.

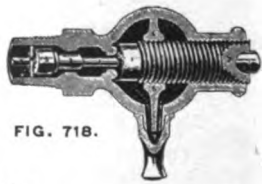

FIG. 718.

Safety Automatic Gauge Cocks.

Size.....inches	¾
Price.....each	3.00
Price, with Polished Brass Weight.....each	3.65

INDESTRUCTIBLE GAUGE COCK, WITH POSITIVE SHUT-OFF.

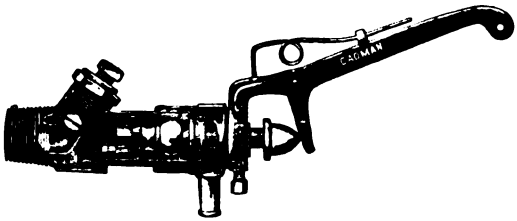

FIG. 719.

Indestructible Gauge Cocks.

Size.....inches	½	¾
Price.....each	4.50	4.50

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BRASS OIL CUPS, NICKEL PLATED.

Style "A."

CLOSED

FIG. 720.

OPENED BY OIL CAN SPOUT

SELF-CLOSING AND DUST PROOF.

OPEN.

FIG. 721.

Number	1	2	3	4	5
Size, Thread.....inches	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$
Price.....per hundred	7.00	9.50	10.70	12.50	16.00

Style "B."

CLOSED.

FIG 722.

SELF-CLOSING AND DUST PROOF.

OPEN.

FIG. 723.

Number	1	2	3	4	5	6	7	8
Size, Thread.....inches	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{3}{8}$
Price.....per hundred	7.00	9.50	10.70	12.50	16.00	22.00	30.00	38.00

Style "C."

CLOSED.

FIG 724

SELF-CLOSING AND DUST PROOF.

OPEN.

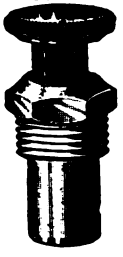

FIG. 725.

Number	4
Size, Thread.....inches	$\frac{3}{8}$, $\frac{7}{16}$ or $\frac{1}{2}$
Price.....per hundred	12.50

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

BRASS OIL CUPS, NICKEL PLATED.

CLOSED.

FIG. 726.

Style "D."

SELF-CLOSING AND DUST PROOF.

FOR USE ON STEERING HEADS OF AUTOMOBILES.

OPEN.

FIG. 727.

Number	1	2	3	4	5	6	7	8
Size, Thread.....inches	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{3}{8}$
Price.....per hundred	7.00	9.50	10.70	12.50	16.00	22.00	30.00	38.00

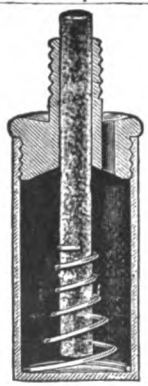

FIG. 728.

Style "H"

FOR USE ON FANS, MOTORS AND OTHER HIGH SPEED MACHINES.

FEEDS ONLY WHEN SHAFT IS RUNNING.

FIG. 729.

Number	5	6	7
Diameter.....inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{7}{8}$
Price.....per hundred	16.00	22.00	30.00

CLOSED.

FIG. 730.

Style "N."

FOR USE IN HORIZONTAL POSITIONS.

NOT SELF-CLOSING

OPEN.

FIG. 731.

Number	1	2	3	4	5
Size, Thread.....inches	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$
Price.....each	7.00	9.50	10.70	12.50	16.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

BRASS OIL CUPS.

PLAIN.

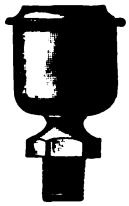

FIG. 732.

WITH COCK.

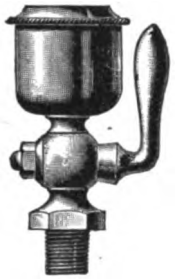

FIG. 733.

ELBOW SHANK.

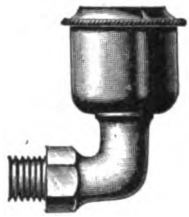

FIG. 734.

Diameter.....inches	3/4	7/8	1	1 1/8	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	3
Size, Thread .. ..inches	1/8	1/8	1/4	1/4	1/4	3/8	3/8	1/2	1/2	1/2	3/4
Price, Plain..... each	.30	.35	.40	.50	.60	.90	1.25	1.75	2.25	2.75	4.00
Price, with T. H. Cock, ea.	.80	.90	1.00	1.25	1.50	2.00	2.50	3.00	3.75	4.50	6.00
Price, with L. H. Cock, ea.	.90	1.00	1.10	1.35	1.60	2.20	2.75	3.25	4.00	5.00	6.50
Price, Elbow Shank....each	.50	.50	.70	.80	1.00	1.40	1.85	2.30	3.00	4.00	.....

LOCOMOTIVE PATTERN.

FIG. 735.

HINGED LID, SMALL BASE.

FIG. 736.

HINGED LID, LARGE BASE.

FIG. 737.

Diameter.....inches	5/8	3/4	7/8	1	1 1/8	1 1/4	1 1/2	1 3/4	2	2 1/2	3
Size, Thread.....inches	1/8	1/8	1/8	1/4	1/4	1/4	3/8	3/8	1/2	1/2	3/4
Price, Locomotive.....each	.....	.35	.40	.50	.60	.75	1.00	1.50	2.00	3.00	5.00
Price, Small Base.....each	.55	.60	.70	.85	1.10	1.20	1.60	2.10	2.70	4.50	.....
Price, Large Base.....each	.....	.65	.70	.85	1.00	1.20	1.60	2.10	2.70	4.00	6.25

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GLASS OIL CUPS.

Shaft Oilers.

SHAFT OILER.

FIG. 738.

WITH LOOSE WIRE AND WOOD PLUG.

FIG. 739.

Number	1	2	3
Diameter.. inches	1¾	2	2¼
Size, Thread inches	⅜	⅝	⅝
Capacity ounces	1	1⅝	2¾
Price each	.50	.55	.60
Price, Extra Glasses each	.08	.08	.08
Price, Extra Cork Washers per dozen	.15	.15	.15

"PIONEER," SLIDE TOP.

FIG. 740.

"ROYAL," SIGHT FEED.

FIG. 741.

Number	000	00	0	1	1½	2	3	4	5	6
Diameter of Glass inches	1	1⅛	1¼	1½	1¾	2	2¼	2½	3	3½
Size, Thread inches	⅛	⅛	⅛	¼	¼	⅜	⅜	⅜	½	½
Capacity ounces	¼	½	⅝	1	1½	2½	4	5	10	18
Price, "Pioneer," Finished each	.70	.75	.80	1.00	1.25	1.50	1.90	2.40	3.10	4.00
Price, "Pioneer," Nickel Plated each	.80	.85	.95	1.20	1.50	1.75	2.20	2.75	3.50	4.50
Price, "Royal," Finished each	.95	1.10	1.25	1.50	1.75	2.10	2.55	3.15	3.90	4.80
Price, "Royal," Nickel Plated each	1.05	1.20	1.40	1.70	2.00	2.35	2.85	3.50	4.30	5.30

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

GLASS OIL CUPS.

"SENTINEL,"
SNAP LEVER, SIGHT FEED.

FIG. 742.

"CROWN"
INDEX, SIGHT FEED.

FIG. 743.

Number	0	1	1½	2	3	4	5	6
Diameter of Glass.....inches	1¼	1½	1¾	2	2¼	2½	3	3½
Size, Thread.....inches	⅜	¼	¼	⅜	⅜	⅜	½	½
Capacity..... ounces	⅝	1	1½	2½	4	5	10	18
Price, "Sentinel," Finished.....each	3.00	3.25	3.50	3.75	4.25	5.25	7.25	9.25
Price, "Sentinel," Nickel Plated..each	3.50	3.75	4.00	4.25	4.75	5.75	8.00	10.25
Price, "Crown," Finished.....each	1.25	1.50	1.75	2.10	2.55	3.15	3.90	4.80
Price, "Crown," Nickel Plated.....each	1.40	1.70	2.00	2.35	2.85	3.50	4.30	5.30

SCREW FEED.

FIG. 744.

Automatic Rod Cups.

FOR ENGINE CRANK PINS

NEEDLE VALVE, FEED.

FIG. 745.

Number	0	1	1½	2	3	4
Diameter of Glass..... inches	1¼	1½	1¾	2	2¼	2½
Size, Thread..... .... inches	⅜	¼	¼	⅜	⅜	⅜
Capacity.....ounces	⅝	1	1½	2½	4	5
Price, Finished..... ....each	1.10	1.50	2.00	2.50	3.00	4.00
Price, Nickel Plated. .....each	1.25	1.70	2.25	2.75	3.30	4.35

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GLASS OIL CUPS.

SECTIONAL.

FIG 746.

Pressure Oil Cups.

SIGHT FEED

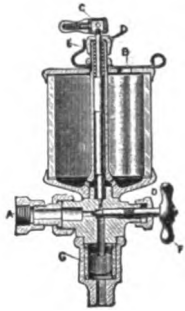

FIG. 747.

Number	2	3	4	5	6	8
Diameter of Glass....inches	2	2¼	2½	3	3½	4¼
Size, Thread....inches	⅜	⅜	⅜	½	½	¾
Capacity....ounces	2½	4	5	10	18	32
Price, Finished....each	2.80	3.40	4.00	5.40	7.00	14.00
Price, Nickel Plated....each	3.25	3.90	4.60	6.25	8.20	16.00

All parts of this cup are made of CAST BRASS. The glass reservoir is not under any pressure whatever. The oil supply is piped through the union A in base, the opening of which into the oil duct leading to the bearing is controlled by oil regulating valve, F. The auxillary supply is regulated by the oil valve, C. The auxillary oiler has a large slide filler, B.

Oil Cup Glasses and Washers.

FIG. 748.

Number	000	00	0	1	1½	2	3	4	5	6	8
Diameter Outside....inches	1	1⅛	1¼	1½	1¾	2	2¼	2½	3	3½	4¼
Height....inches	⅞	1	1⅛	1⅜	1⅝	1⅞	2⅛	2⅜	3	4	5
Price....each	.05	.06	.08	.10	.10	.12	.15	.25	.35	.65	1.50
Price, Cork Washers.. per dozen	.15	.18	.24	.30	.36	.40	.45	.50	.60	.75	1.50

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 275

BRASS LOOSE PULLEY OILERS.

FIG. 749

Number	0	1	2	3	4
Diameter.....inches	1	1¼	1½	1¾	2
Capacity .....ounces	¼	½	¾	1¼	1¾
Price, Rough Brass, Bronzed.....each	.25	.30	.40	.50	.65

PLAIN.

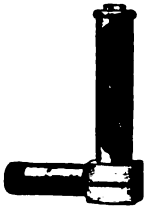

FIG. 750.

Oil Gauges.

WITH DRAIN COCK.

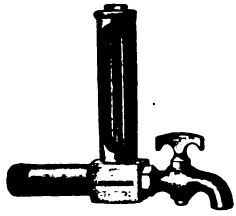

FIG. 751.

Size, Thread.....inches	⅛	¼	⅜	½
Length of Glass.....inches	2	2½	3	4
Price, Plain, Finished.....each	.40	.50	.65	1.00
Price, Plain, Nickel Plated.....each	.55	.65	.80	1.20
Price, with Drain Cock, Finished.....each	.80	.90	1.05	1.40
Price, with Drain Cock, Nickel Plated .....each	1.00	1.10	1.25	1.65

PLAIN OILER ARM.

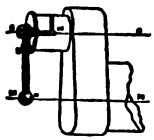

FIG. 752.

OILER ARM COMPLETE.

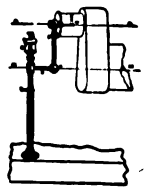

FIG 753.

Number	1	2	3
Length of Stroke.....inches	Up to 16	Up to 30	Up to 60
Size, Pipe Thread on Bolt .....inches	⅜	⅜	½
Price, Oiler Arm .....each	6.00	7.00	9.00
Price, Oiler Arm, Nickel Plated.....each	7.00	8.00	11.00
Price, Oiler Arm Complete.....each	15.00	17.00	21.00
Price, Oiler Arm Complete, Nickel Plated....each	18.00	20.50	25.00

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OILING DEVICES FOR ENGINE AND MACHINERY BEARINGS.

STRAIGHT DRIP VALVE.

FIG. 754.

ANGLE DRIP VALVE.

FIG. 755.

CROSS DRIP VALVE.

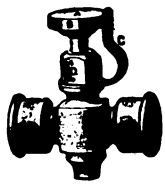

FIG. 756.

STRAIGHT SIGHT FEED VALVE.

FIG. 757.

Size, Pipe Thread .... inches	¼ or ⅜	
Size, Outlet Connection.....inches	¼, 27 Threads for O D Brass Pipe.	
	Finished.	Nickel Plated.
Price, Straight Drip Valve.....each	1.25	1.50
Price, Angle Drip Valve.....each	1.25	1.50
Price, Cross Drip Valve .....each	1.50	1.75
Price, Straight Sight Feed Valve.....each	2.00	2.25

ANGLE SIGHT FEED VALVE.

FIG. 758.

CROSS SIGHT FEED VALVE

FIG. 759.

SRTAIGHT SIGHT FEED VALVE WITH UNION.

FIG. 760.

ANGLE SIGHT FEED VALVE WITH UNION

FIG. 761.

Size, Pipe Thread.....inches	¼ or ⅜	
Size, Outlet Connection.....inches	¼, 27 Threads for O D Brass Pipe.	
Size, Union, Pipe Thread.....inches	¼	
	Finished.	Nickel Plated.
Price, Angle Sight Feed Valve.....each	2.00	2.25
Price, Cross Sight Feed Valve .....each	2.30	2.60
Price, Straight Sight Feed Valve with Union .....each	2.50	2.80
Price, Angle Sight Feed Valve with Union.....each	2.50	2.80

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

OILING DEVICES FOR ENGINE AND MACHINERY BEARINGS.

CROSS SIGHT FEED VALVE WITH UNION.

FIG. 762.

ADJUSTABLE WIPER CUP FOR WICK.

FIG. 763.

ADJUS'LE WIPER CUP FOR WICK. ELBOW SHANK.

FIG. 764.

ADJUS'LE WIPER CUP FOR CRANK PIN.

FIG. 765.

Size, Pipe Thread.....inches	¼ or ⅜	
Size, Outlet Connection.....inches	¼, 27 Threads for O D Brass Pipe.	
Size, Union, Pipe Thread.....inches	¼	
	Finished.	Nickel Plated.
Price, Cross Sight Feed Valve with Union.....each	2.80	3.10
Price, Adjustable Wiper Cup for Wick.....each	2.50	3.00
Price, Adjustable Wiper Cup for Wick, Elbow Shank, each	3.00	3.50
Price, Adjustable Wiper Cup for Crank Pin.....each	2.50	3.00

ADJUS'LE PLAIN WIPER CUP, ELBOW SHANK.

FIG. 766

PLAIN WIPER CUP.

FIG. 767.

HORIZONTAL WICK WIPER CUP.

FIG. 768.

OIL CUP WIPER TIP.

FIG. 769.

Size, Outlet Connection.....inches	¼, 27 Threads for O D Brass Pipe.					
	Finished.			Nickel Plated.		
Size, Pipe Thread.. .....inches	¼	⅜	½	¼	⅜	½
Price, Adjustable Plain Wiper Cup, Elbow Shank, each	3.00	3.00	.....	3.50	3.50	.....
Price, Plain Wiper Cup.....each	1.00	1.50	2.00	1.20	1.75	2.40
Price, Horizontal Wick Wiper Cup ...each	2.00	2.00	.....	2.30	2.30	.....
Price, Oil Cup Wiper Tip .....each	.40	.40	.50	.50	.50	.60

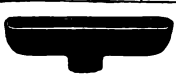

FIG. 770.

Drip Troughs.

Size, Pipe Thread.....inches	¼	⅜	½	½
Length .....inches	3	5	7	9
Price, Rough.. .....each	.75	1.00	1.50	2.00
Price, Finished ....each	1.00	1.50	2.00	2.75
Price, Nickel Plated.....each	1.25	2.00	2.75	3.50

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

MULTIPLE OILER.

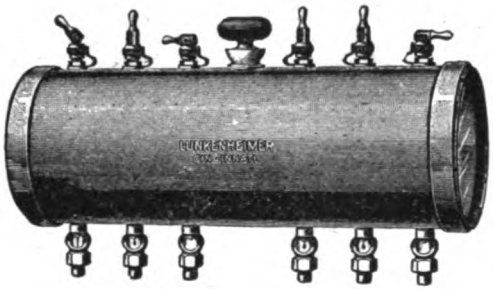

FIG. 771.

Capacity	1 Pt.	1 Qt.	½ Gal.	1 Gal.	2 Gal.	3 Gal.
Reservoirs, Finished.....each	8.40	11.60	15.00	20.00	26.60	36.60
Reservoirs, Nickel Plated.....each	9.70	13.70	17.30	22.60	29.70	40.00
Sight Feeds, Finished.....each	1.35	1.40	1.50	1.55	1.60	1.70
Sight Feeds, Nickel Plated.....each	1.55	1.60	1.70	1.75	1.80	1.90
Brackets for supporting Reservoir, Finished.....per pair	1.35	1.70	2.00	2.35	2.70	3.30
Brackets for supporting Reservoir, Nickel Plated.....per pair	1.50	1.90	2.35	2.70	3.15	4.00

This style of oiler was originally designed and adapted for use on high-speed vertical engines, but has been found useful for all places where it is desirable to oil a number of bearings from one reservoir situated in a convenient place. The sight feeds are provided with the "Sentinal" style of oil-regulating device, which can be quickly adjusted to give any desired flow of oil, and feed can be put on or off by simply raising or lowering cam lever at top. We are prepared to furnish devices of this kind of any desired capacity and number of sight feeds, and with square body instead of round as shown in cut. Unions at bottom of sight feeds can be furnished threaded, either male or female, or plain for brazing. In ordering always state capacity of reservoir required, give the number of sight feeds, and whether unions on same are to be threaded, or left plain for brazing. If unions are to be threaded state thread desired, and if for brazing give outside diameter of pipe. Unions with larger thread than ¼-inch pipe will be charged extra.

The list prices herewith cover the round-body device, as shown in cut. To find list for any size of oiler and number of sight feeds, proceed as follows: Multiply the list price of sight feeds for size of reservoir required by the number of same, and add this amount to the list price of the reservoir, and if brackets are required, add these also, and the sum of the three items will be the complete list price, subject to discount.

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THE W. M. PATTISON SUPPLY CO. 279 CLEVELAND

BRASS GREASE CUPS.

"REX," SPUN TOP.

FIG. 772.

"GEM."

FIG. 773.

"Rex."

Number	6	7	8	9
Diameter, Inside....inches	$1\frac{3}{32}$	$1\frac{7}{32}$	$2\frac{3}{16}$	$2\frac{5}{8}$
Size, Thread....inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{3}{8}$
Capacity....ounces	$\frac{3}{4}$	$1\frac{1}{2}$	$3\frac{1}{2}$	5
Price....each	.55	.70	.90	1.50

"Gem."

Number	00	0	1	2	3	4
Diameter, Inside....inches	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Size, Thread....inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$
Capacity....ounces	$\frac{1}{4}$	$\frac{3}{4}$	1	2	$3\frac{1}{2}$	5
Price, Finished....each	.70	.90	1.15	1.50	2.15	2.90
Price, Nickel Plated....each	.80	1.00	1.30	1.70	2.45	3.20

"Tiger."

FIG. 774.

SECTIONAL.

FIG. 775.

Number	00	0	1	2	3	4
Diameter, Inside....inches	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Size, Thread....inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$
Capacity....ounces	$\frac{1}{2}$	$\frac{3}{4}$	1	2	$3\frac{1}{2}$	5
Price, Rough....each	.56	.74	.96	1.28	1.76	2.30
Price, Finished....each	.70	.90	1.15	1.50	2.15	2.90
Price, Nickel Plated....each	.82	1.06	1.36	1.80	2.60	3.40

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BRASS GREASE CUPS.

"Jewell."

FOR BEARINGS, LOOSE PULLEYS, ETC.

SECTIONAL.

FIG. 776.

FIG. 777.

Number	00	0	1	2	3	4
Diameter, Inside.....inches	1	1¼	1½	2	2½	3
Size, Thread.....inches	⅛	¼	⅜	⅜	½	½
Capacity.....ounces	⅛	1	1½	3	6	10
Price, Finished.....each	.80	1.00	1.30	1.70	2.30	3.20
Price, Nickel Plated.....each	1.00	1.30	1.70	2.20	2.90	3.90

"Marine."

SCREW FEED.

FOR ENGINE CRANK PINS, JOURNALS, ETC.

SECTIONAL.

FIG. 778.

FIG. 779.

Number	00	0	1	2	3	4
Diameter, Inside.....inches	1	1¼	1½	2	2½	3
Size, Thread.....inches	⅛	¼	⅜	⅜	½	½
Capacity.....ounces	⅛	1	1½	3	6	10
Price, Finished.....each	1.00	1.20	1.60	2.00	2.80	4.00
Price, Nickel Plated.....each	1.20	1.45	1.90	2.40	3.40	4.75

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

BRASS GREASE CUPS.

"Lion."

AUTOMATIC DETACHABLE RESERVOIR

FIG. 780.

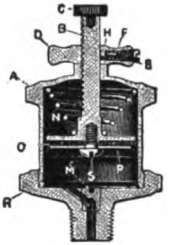

FIG. 781.

Number	00	0	1	2	3	4
Diameter, Inside ....inches	1	1¼	1½	2	2½	2⅞
Size, Thread....inches	⅛	¼	¼	⅜	½	½
Capacity ....ounces	⅛	1	1½	3	6	10
Price, Finished....each	1.50	2.00	2.50	3.20	4.30	6.00
Price, Nickel Plated....each	1.75	2.25	2.80	3.60	5.00	6.75

"Kennedy."

FIG. 782.

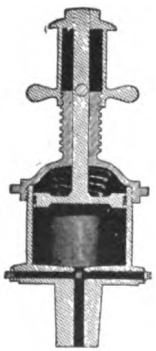

FIG. 783.

Number	1	2	3
Diameter, Inside....inches	1½	2	2¾
Size, Thread....inches	¼	⅜	½
Capacity....ounces	1½	3	6
Price....each	2.50	3.00	5.00

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SWAIN'S BRASS GREASE CUPS.

SHAFTING CUP. LOOSE PULLEY CUP. CRANK PIN CUP. SECTIONAL.

FIG. 784.

FIG. 785.

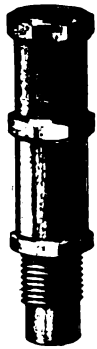

FIG. 786.

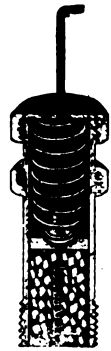

FIG. 787.

Shafting Cups.

Size, Diameter Outside.....inches	$\frac{1}{2}$	$1\frac{1}{16}$	$\frac{7}{8}$	1	$1\frac{1}{2}$
Size Shaft.....inches	$\frac{3}{4}$ to $1\frac{1}{4}$	$1\frac{1}{2}$ to 2	$2\frac{1}{2}$ to 3	$3\frac{1}{2}$ to 6	6 and up
Use Cup.....inches	$\frac{1}{2}$	$1\frac{1}{16}$	$\frac{7}{8}$	1	$1\frac{1}{2}$
Price .....each	.15	.20	.25	.30	.50

Loose Pulley and Crank Pin Cups.

Size, Diameter Outside.....inches	$\frac{3}{8}$	$\frac{5}{8}$	$\frac{3}{4}$
Size, Pipe Thread.....inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$
Price, Loose Pulley Cup.....each	.75	1.00	1.50
Price, Crank Pin Cup.....each	2.00	2.50	3.00

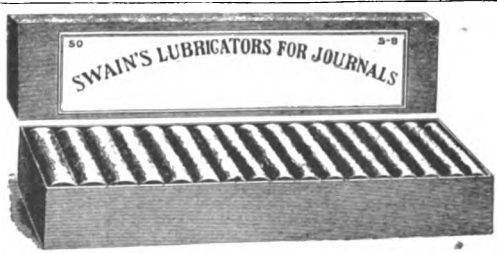

FIG. 788.

Lubricant for Swain's Cups.

Size, Diameter of Lubricant.....inches	$\frac{3}{8}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	$1\frac{1}{4}$
Size Cup to Use In.....inches	$\frac{1}{2}$	$1\frac{1}{16}$	$\frac{7}{8}$	1	$1\frac{1}{2}$
Price.....per hundred	2.00	2.50	4.00	5.00	8.00
Speed of Shafting.....revolutions	250 and less	300 to 450		500 to 1000 and over	
Grade to use.....	M	A		AA	
Speed of Loose Pulleys.....revolutions	Up to 250		Over 250		
Grade to use.....	M		A		

Lubricant put up in boxes of 50 each.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

BRASS HAND CYLINDER OIL PUMPS.

With Valves.

HORIZONTAL.

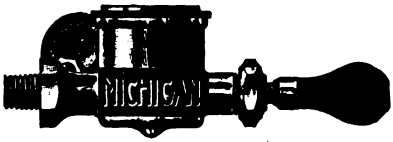

FIG. 789.

ANGLE.

FIG. 790.

Horizontal and Angle Brass Oil Pumps. Fig. 789

	Capacity	Size of Bowl, Inches.	With Screw Top.		With Strainer Top.	
			Finished.	Nickel Plated.	Finished.	Nickel Plated.
Price.....each	¼ Pint	2½x2½	3.50	4.00	3.65	4.15
Price.....each	½ Pint	2¾x2¾	5.00	5.65	5.25	5.90
Price.....each	1 Pint	3½x3½	7.50	8.40	7.80	8.70

Horizontal and Angle Brass Oil Pumps. Fig. 790.

	Capacity.	Size of Bowl, Inches.	With Strainer Top.	
			Finished.	Nickel Plated.
Price.....each	¼ Pint	2½x2½	4.25	4.75
Price.....each	½ Pint	3 x 3	5.00	5.75
Price.....each	1 Pint	3½x3½	7.50	8.60
Price.....each	1 Quart	4¼x4½	12.00	13.50

Horizontal and Angle Glass Body Oil Pumps. Fig. 790.

	Capacity.	Size of Bowl, Inches.	With Strainer Top.	
			Finished.	Nickel Plated.
Price.....each	4 Ounces	2½x2⅜	8.00	8.75
Price.....each	8 Ounces	3 x 3	8.50	9.50
Price.....each	1 Pint	3½x4	10.00	11.00
Price.....each	1 Quart	4¼x5	15.00	16.50

Fig. 790 can be used either in a horizontal or vertical position

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GLASS BODY OIL PUMPS.

Hand Feed.

LEVER PATTERN.

FIG. 791.

"UNIVERSAL."

FIG. 792.

Lever Pattern Hand Oil Pumps.

Capacity	⅛ Pint	½ Pint	1 Pint	1 Quart
Size of Glass, Height ....inches	2⅛	3	4	5
Size of Glass, Diameter....inches	2⅛	3	3½	4½
Size, Thread....inches	⅜	⅜	½	½
Price, Finished ....each	7.50	8.50	10.00	15.00
Price, Nickel Plated....each	8.25	9.50	11.00	16.50
Price, Extra Glasses....each	.15	.35	.65	1.50
Price, Cork Washers ....per dozen	.45	.60	.75	1.50

Universal Hand Oil Pumps.

Capacity	⅛ Pint	½ Pint	1 Pint	1 Quart
Size of Glass, Height.... ....inches	2⅛	3	4	5
Size of Glass, Diameter....inches	2⅛	3	3½	4½
Size, Thread....inches	⅜	⅜	½	½
Price, Finished....each	7.50	8.50	10.00	15.00
Price, Nickel Plated....each	8.25	9.50	11.00	16.50

Extra Glasses and Washers same as above.

Brass Universal Hand Oil Pumps.

Capacity	⅛ Pint	½ Pint	1 Pint	1 Quart
Price, Finished....each	8.30	9.50	11.00	16.50
Price, Nickel Plated....each	9.10	10.30	12.20	18.20

Dimensions same as above.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

FORCE FEED OIL PUMPS

Glass Body.

"MECHANICAL."

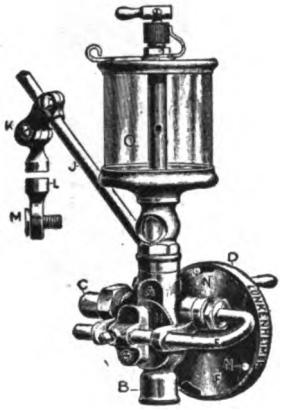

FIG. 793.

FORCE FEED.

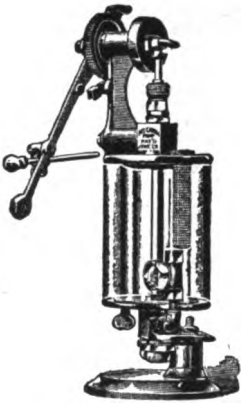

FIG. 794.

"Mechanical" Oil Pumps.

Price, Pump without Oil Cup, Finished	each	16.00
Price, Pump without Oil Cup, Nickel Plated	each	18.00
Price, Pump with Oil Cup, Finished	each	19.00
Price, Pump with Oil Cup, Nickel Plated	each	21.00

Force Feed Oil Pumps.

Capacity	1 Pt. Single. Glass	1 Qt. Single. Glass	1 Qt. Single	1 Qt. Double	½ Gal. Single	½ Gal. Double	1 Gal. Single	1 Gal. Double
Price, Nickel Plated.....each	16.00	25.00	30.00	40.00	35.00	45.00	45.00	55.00

Capacity	1 Gal. Triple	1½ Gal. Single	1½ Gal. Double	1½ Gal. Triple	1½ Gal. Quadruple	1½ Gal. Five Feed	2 Gal. Single	2 Gal. Double
Price, Nickel Plated.....each	65.00	65.00	70.00	75.00	80.00	90.00	70.00	85.00

Capacity	2 Gal. Triple	2 Gal. Quadruple	2 Gal. Five Feed	2 Gal. Six Feed	2 Gal. Seven Feed	2 Gal. Eight Feed	2 Gal. Nine Feed	.....
Price, Nickel Plated.....each	105.00	130.00	155.00	180.00	205.00	230.00	255.00	.....

Sight Feed on Force Feed Pumps, $2.50.

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BRASS LUBRICATORS.

PLAIN.

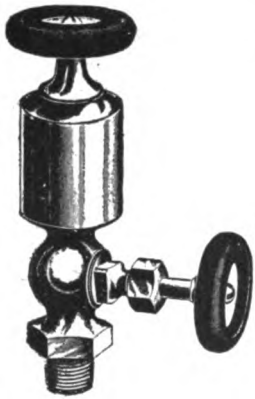

FIG. 795.

WITH COCK AND TUBE.

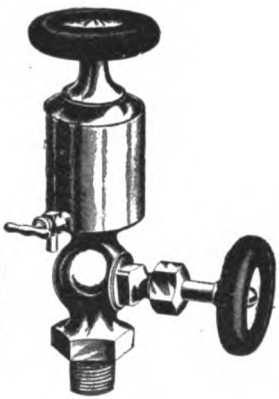

FIG. 796.

LUNKENHEIMER'S, WITH COCK AND TUBE.

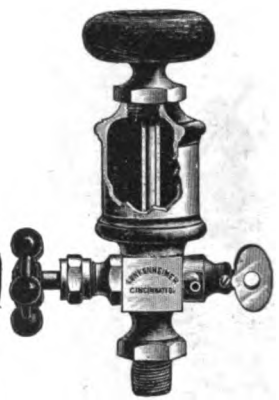

FIG. 797.

Plain Lubricators.

Diameter.....inches	1	1¼	1½	1¾	2	2¼	2½	3	3½	4
Size, Thread.....inches	⅜	⅜	⅜	½	½	½	½	¾	¾	¾
Capacity.....ounces	¼	1	1¼	1½	2½	4	5	10	18	24
Price.....each	2.00	2.20	2.40	2.60	2.90	3.25	3.75	4.75	7.00	10.00

Lubricators, with Cock and Tube.

Diameter.....inches	1	1¼	1½	1¾	2	2¼	2½	3	3½	4
Size, Thread.....inches	⅜	⅜	⅜	½	½	½	½	¾	¾	¾
Capacity.....ounces	¾	1	1½	1½	2½	4	5	10	18	24
Price.....each	3.00	3.20	3.40	3.60	3.90	4.25	4.75	5.75	8.00	11.00

Lunkenheimer's Lubricators, with Cock and Tube.

Diameter.....inches	1¾	2	2½	3
Size, Thread.....inches	⅜	½	½	¾
Capacity.....ounces	¼	½	¾	1
Price.....each	3.00	4.50	6.00	7.50

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THE W. M. PATTISON SUPPLY CO. 287 CLEVELAND

LUNKENHEIMER'S SIGHT FEED LUBRICATORS.

"JUNIOR," SINGLE CONNECTION.

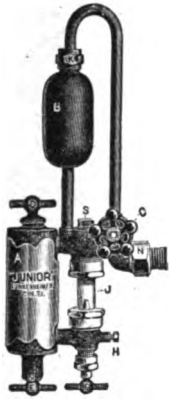

FIG. 798.

"SENIOR," DOUBLE CONNECTION.

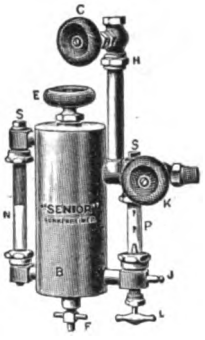

FIG. 799.

"Junior" Lubricators.

Size	¼ Pint	½ Pint	½ Pint
Size, Thread.....inches	⅜	⅜	½
Price, Partly Finished.....each	7.00	8.00	10.00
Price, Finished.....each	8.50	10.00	12.00
Price, Nickel Plated.....each	10.00	11.50	13.50

These Lubricators can be furnished with a glass gauge, to indicate quantity of Oil in reservoir at 50 cents each.

"Senior" Lubricators.

Size	¼ Pint	½ Pint	½ Pint	¾ Pint	1 Pint
Size Thread.....inches	⅜	⅜	⅜	½	½
For Engine Cylinder.. .....inches	Up to 4	4 to 6	6 to 10	10 to 14	14 to 18
Price, Finished.....each	12.00	15.00	17.00	20.00	22.00
Price, Nickel Plated.....each	13.50	17.00	19.00	22.50	25.00
Condenser Connections, Brass Tubing and Angle Valve. .....each	.60	.70	.80	1.00	1.20
Condenser Connections, Brass Tubing and Angle Valve, Nickel Plated.....each	.70	.80	.90	1.15	1.40
Length of Condenser Pipes.....inches	15	18	24	30	36

Size	1½ Pint	1 Quart	½ Gallon	1 Gallon	.....
Size Thread .....inches	½	½	½	½	.....
For Engine Cylinder.....inches	18 to 24	24 to 30	30 up	....	.. ..
Price, Finished..... .....each	25.00	28.00	38.00	60.00	.....
Price, Nickel Plated..... ..... each	28.50	32.00	43.00	65.00	..... .
Condenser Connections, Brass Tubing and Angle Valve.....each	1.40	1.50	1.60	1.70	.....
Condenser Connections, Brass Tubing and Angle Valve, Nickel Plated.....each	1.60	1.70	1.80	2.00	.....
Length of Condenser Pipes.....inches	42	48	60	72	.. ..

Lubricators are sent without Condenser Pipes.

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DETROIT SIGHT FEED LUBRICATORS.

SINGLE CONNECTION.

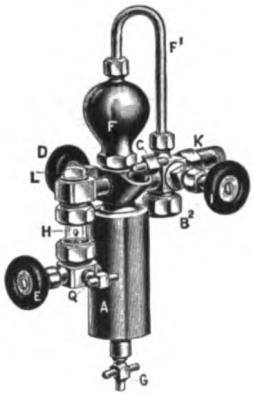

FIG. 800.

DOUBLE CONNECTION.

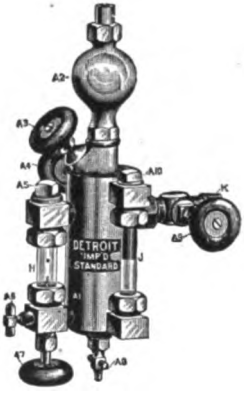

FIG. 801.

Single Connection Lubricators.

Size	¼ Pint	½ Pint	½ Pint	1 Pint	1 Quart
Size, Thread.....inches	½	½	½	½	½
Price, Finished.....each	15.00	17.00	20.00	28.00	42.00
Price, Nickel Plated.....each	18.00	20.00	23.00	32.00	47.00

Double Connection Lubricators.

Size.....	½ Pint	½ Pint	1 Pint	1 Quart	½ Gallon	1 Gallon
Size, Thread.....inches	½	½	½	½	¾	¾
For Engine Cylinder ...inches	Under 10	10 to 12	12 to 18	18 to 30	30 and over	.....
Price, Finished...each	17.00	22.00	30.00	45.00	60.00	75.00
Price, Nickel Plated....each	20.00	25.00	35.00	50.00	65.00	80.00

Size of Glasses Used.

Size.....	½ Pint	½ Pint	1 Pint	1 Quart	½ Gallon	1 Gallon
Size, Sight Feed Glass..inches	⅝x2	⅝x3	⅝x3	⅝x3½	⅝x3½	⅝x3½
Size, Gauge Glass.....inches	⅝x2	⅝x3½	⅝x4⅜	⅝x4 3/16	⅝x6¾	⅝x9¾
Price.....each	.....	.....	.....	.....	.....	.10

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

"SWIFT" SIGHT FEED LUBRICATORS.

SINGLE CONNECTION.

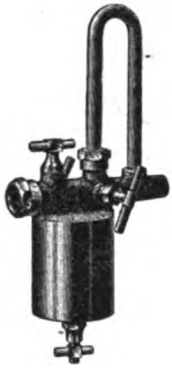

FIG. 802.

DOUBLE CONNECTION.

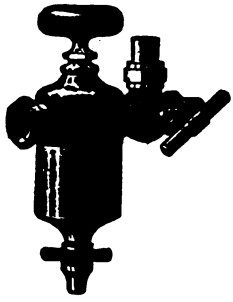

FIG. 803.

Single Connection Lubricators.

Size	⅛ Pint	¼ Pint	½ Pint	½ Pint
Size, Thread.....inches	¼	¼	⅜	⅜
Price, Finished.....each	2.50	3.00	3.75	4.50
Price, Nickel Plated.....each	3.00	3.50	4.25	5.00

Double Connection Lubricators.

Size	¼ Pint	½ Pint	½ Pint	1 Pint	1½ Pint	1 Quart
Size, Thread..... inches	⅜	⅜	⅜	½	½	½
Price, Finished.....each	10.00	12.00	16.00	22.00	28.00	34.00
Price, Nickel Plated, each	12.00	14.00	20.00	26.00	32.00	40.00

SINGLE CONNECTION, "F. S. C."

FIG. 804.

SINGLE CONNECTION, STRAIGHT UNION SHANK.

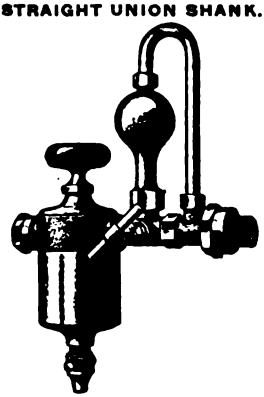

FIG. 805.

SINGLE CONNECTION, ANGLE UNION SHANK.

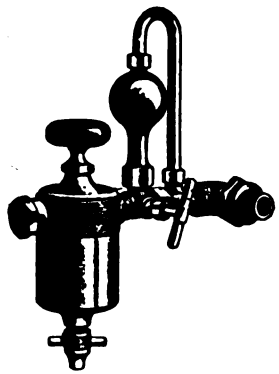

FIG. 806.

Single Connection Lubricators.

Size	¼ Pint	½ Pint	½ Pint	1 Pint	1½ Pint	1 Quart
Size, Thread F.S.C, inches	⅜	⅜	⅜	½	½	½
Size, Thread.....inches	½	½	½	½	½	½
Price, Finished.....each	10.00	12.00	16.00	22.00	28.00	34.00
Price, Nickel Plated, each	12.00	14.00	20.00	26.00	32.00	40.00

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LUNKENHEIMER'S INDEPENDENT SIGHT FEEDS.

PLAIN.

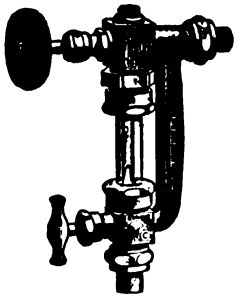

FIG. 807.

WITH EQUALIZING ATTACHMENT.

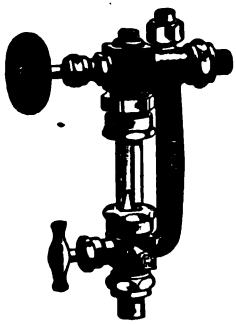

FIG. 808.

Independent Sight Feeds.

Price, Finished.....each	6.00
Price, Nickel Plated.....each	7.00
Price, Finished, with Equalizing Attachment.....each	6.50
Price, Nickel Plated, with Equalizing Attachment.....each	7.50

LUNKENHEIMER'S "JOKER" SIGHT FEED LUBRICATORS.

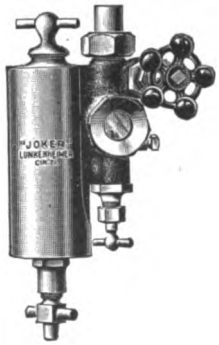

FIG. 809.

Size.....pints	⅛	¼	½	¾
Size, Thread.....inches	¼	¼	¾	¾
Price, Partly Finished.....each	3.50	4.00	5.00	6.00
Price, Nickel Plated.....each	4.00	4.50	5.60	6.75
Condenser Connections.....each	.60	.60	.70	.80
Condenser Connections, Nickel Plated.....each	.70	.70	.80	.90
Extra "Bulls Eyes".....each	.30	.30	.30	.30
Length of Condenser Pipes.....inches	15	15	18	24

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 291

LUNKENHEIMER'S GLASS BODY, SIGHT FEED LUBRICATORS.

For Gas, Gasoline or Oil Engines, Etc

"PARAGON."

FIG. 810

"MARS."

FIG. 811.

"Paragon" Lubricators.

Capacity.....ounces	1½	2½	4	5	10	18	32
Size of Glass, Height.....inches	1⅝	1⅞	2¼	2⅜	3	4	5
Size of Glass, Diameter...inches	1¾	2	2¼	2½	3	3½	4
Size, Thread..... .....inches	¼	⅜	⅜	⅜	½	½	¾
Price, Finished..... . each	2.00	2.80	3.50	4.00	5.40	7.00	14.00
Price, Nickel Plated.....each	2.40	3.25	4.10	4.60	6.25	8.20	16.40

"Mars" Lubricators.

Capacity..... ounces	2½	4	5	10	18
Size Glass, Height.....inches	1⅞	2¼	2⅜	3	4
Size Glass, Diameter..... inches	2	2¼	2½	3	3½
Size, Thread..... .....inches	½	½	½	½	¾
Price, Finished .....each	5.00	6.00	8.00	10.00	12.00
Price, Nickel Plated..... each	6.00	7.25	9.50	12.00	14.00
Price, Extra Sight Feed Glasses.....per dozen	.60	.60	.60	.60	.60

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LUNKENHEIMER'S SIGHT FEED LUBRICATORS.

"BANNER."

FIG. 812.

"GRAPHITE."

FIG. 813

"Banner" Lubricators.

Capacity.....ounces	1	1½	2½	4	5	10	18
Size, Oil Chamber, Diameter.....inches	1½	1¾	2	2½	2½	3	3½
Size, Thread.....inches	⅜	⅜	½	½	½	½	¾
Price, Finished.....each	3.50	4.00	5.00	6.00	8.00	10.00	12.00
Price, Nickel Plated.....each	4.20	5.00	6.00	7.25	9.50	12.00	14.00
Price, Extra Sight Feed Glasses.....per dozen	.60	.60	.60	.60	.60	.60	.60

"Graphite" Lubricators.

Capacity (Graphite).....ounces	3	5	8
Size, Thread.....inches	⅜	½	½
Price, Finished.....each	10.00	12.00	16.00
Price, Nickel Plated.....each	11.00	14.00	18.00

☞The "Banner" is designed for gas engines, air compressors, etc., etc.

The "Graphite" Sight Feed Lubricator is designed for feeding POWDERED GRAPHITE. The graphite is fed automatically and continuously in desired quantities, and visibly, by passing it through a sight feed. The Lubricator requires but one connection to the cylinder. It is not advisable to use Graphite alone; it is good practice therefore to use in connection with the "Graphite" Lubricator either an Oil Pump or Sight Feed Lubricator.

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THE W. M. PATTISON SUPPLY CO. 293 CLEVELAND

"VULCAN" FORCE FEED, SIGHT FEED LUBRICATOR.

FIG. 814.

STEAM AUTOMOBILE CYLINDER LUBRICATOR.

FIG. 815.

"Vulcan" Lubricators.

Capacity.....ounces	1½	3	4½	6½
Size, Outside Diameter.....inches	1¾	2¼	2¾	3¼
Size, Thread.....inches	¼	⅜	½	½
Price, Finished.....each	5.00	6.00	8.00	10.00
Price, Nickel Plated.....each	6.00	7.25	9.50	12.00
Price, Extra Sight Feed Glasses... each	.60	.60	.60	.60

Automobile Lubricators.

Capacity.....ounces	4	6	8
Size, Thread.....inches	¼	⅜	⅜
Price, Rough.....each	2.70	4.00	5.20
Price, Finished.....each	3.30	4.40	5.50
Price, Nickel Plated.....each	3.90	5.20	6.60

☞The "Vulcan" Lubricator is intended for feeding HEAVY OILS WHEN COLD, to Gas Engines and Air Compressor Cylinders. The spring actuated piston causes a FORCE FEED. It is also recommended for use on bearings requiring heavy oil. DO NOT FEED GREASE.

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"DETROIT" LUBRICATORS AND BOILER OIL INJECTORS.

AMMONIA CYLINDER LUBRICATOR.

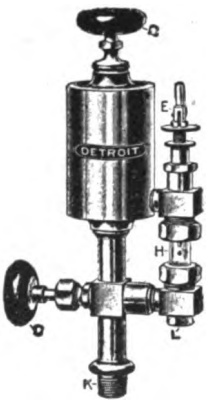

FIG. 816.

BOILER OIL INJECTOR.

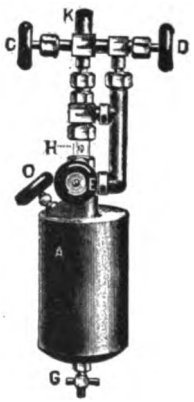

FIG. 817.

Ammonia Cylinder Lubricators.

Capacity	½ Pint	¾ Pint	1 Pint	1 Pint	1 Quart
Size, Thread.....inches	½	½	½	¾	½
Price, Finished.....each	15.00	17.00	20.00	28.00	42.00
Price, Nickel Plated.....each	18.00	20.00	23.00	32.00	47.00

Boiler Oil Injectors.

Capacity	1 Pint	1 Quart	½ Gallon	1 Gallon
Size, Thread.....inches	½	½	½	½
Price.....each	15.00	20.00	25.00	30.00

The "Detroit" Boiler Oil Injector will remove the scale from a boiler and keep it clean at a cost of about ONE CENT PER DAY.

For 80 to 100 horse power boilers use ONE QUART OF KEROSENE PER DAY until the Scale drops off. Afterward, about Eight Drops Per Minute will be sufficient for most boilers. But when badly scaled or where high pressure steam is carried a large quantity should be used.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

LUNKENHEIMER'S SIGHT FEED BOILER OIL INJECTORS.

"STANDARD."

FIG. 618

"EMERALD."

FIG. 619.

"Standard" Boiler Oil Injectors.

Capacity	½ Pt.	1 Pt.	1 Qt.	½ Gal.	1 Gal.	1½ Gal.	2 Gal.
For Boilers.....H. P.	10	25	75	100	150	200	250
Price, Iron, Brass Trimmings.....each	.....	.....	.....	16.50	19.50	22.50	30.00
Price, Brass, Partly Finished.....each	7.50	10.00	13.50	.....	.....	.....	.....
Price, Brass, Finished.....each	8.00	10.60	14.25	.....	.....	.....	.....
Price, Brass, Nickel Plated, each	8.50	11.20	15.00	.....	.....	.....	.....

"Emerald" Boiler Oil Injectors.

Capacity	½ Pt.	1 Pt.	1 Qt.	½ Gal.	1 Gal.	1½ Gal.	2 Gal.
For Boilers.....H. P.	10	25	75	100	150	200	250
Price, Iron, Brass Trimmings.....each	.....	.....	.....	16.50	19.50	22.50	30.00
Price, Brass, Partly Finished.....each	7.50	10.00	13.50	.....	.....	.....	.....
Price, Brass, Finished.....each	8.00	10.60	14.25	.....	.....	.....	.....
Price, Brass, Nickel Plated, each	8.50	11.20	15.00	.....	.....	.....	.....
Price, Extra Bulls Eyes.....each	.30	.30	.30	.30	.30	.30	.30

The "Emerald" Boiler Oil Injector is designed for Locomotives, Tract Engines, etc.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM WHISTLES.

PLAIN.

FIG. 820.

WITH VALVE ADJUSTABLE LEVER.

FIG. 821

Diameter of Bell.....inches	1	1¼	1½	2	2½	3
Size Pipe.....inches	¼	¼	¾	¾	¾	¾
Price, Plain.....each	2.20	2.75	3.00	4.35	5.25	7.25
Price, with Valve.....each	3.10	3.75	4.00	5.50	6.50	8.50
Price, Iron Base, Plain .....each	.....	.....	.....	.....	.....	5.50

Diameter of Bell.....inches	3½	4	5	6	8	10
Size Pipe.....inches	1	1¼	1½	1½	2	2½
Price, Plain.....each	9.50	12.00	19.00	24.00	70.00	133.00
Price, with Valve.....each	11.50	15.00	22.50	33.00	95.00	160.00
Price, Iron Base, Plain.....each	7.25	10.00	16.00	23.00	55.00	100.00

PLAIN CHIME.

FIG. 822.

CHIME, WITH VALVE. REVERSIBLE LEVER

FIG. 823

Diameter of Bell .inches	1½	2	3	4	5	6	8	10
Size Pipe.....inches	⅜	½	¾	1¼	1½	1½	2	2½
Price, Plain.....each	4.50	5.00	8.00	14.00	28.00	38.00	85.00	150.00
Price, with Valve...each	6.00	7.00	11.00	18.00	35.00	45.00	100.00	180.00

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LUNKENHEIMER'S STEAM WHISTLES.

THE W. M. PATTISON SUPPLY CO. CLEVELAND

PLAIN CHIME.

FIG. 824.

CHIME, WITH VALVE ADJUSTABLE LEVER.

FIG. 825.

Diameter of Bell...inches	1½	2	2½	3	3½	4	5	6	8	10
Size Pipe.....inches	⅜	½	¾	¾	1	1¼	1½	1½	2	2½
Price, Plain.....each	5.50	8.50	10.50	13.50	18.50	24.00	37.00	49.00	120.00	188.00
Price, with Valve.....each	7.00	10.00	13.00	16.00	22.00	28.00	44.00	60.00	145.00	235.00
Price, Iron Base, Plain.....each	.....	.....	.....	12.00	16.50	22.00	33.00	45.00	108.00	155.00

MOCKING BIRD.

FIG. 826.

FIRE ALARM.

FIG. 827.

Diameter of Bell.....inches	2½	3	3½	4	5	6	8
Size Pipe.....inches	¾	¾	1	1¼	1½	1½	2
Price, Mocking Bird, Plain.....each	9.00	12.00	17.50	25.00	37.00	50.00	.....
Price, Mocking Bird, with Valve.....each	10.50	14.00	20.00	28.00	40.00	56.00	.....
Price, Mocking Bird, Iron Base, Plain, each	.....	11.50	16.50	23.00	34.00	46.00	.....
Price, Fire Alarm with Valve.....each	24.00	.....	31.00	.....	40.00	.....	100.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

THREE WHISTLE CHIME.

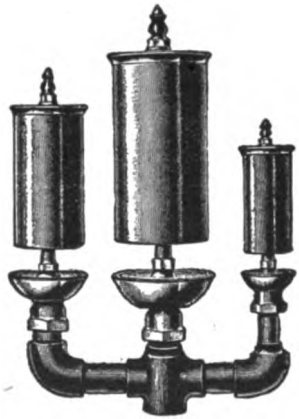

FIG. 828.

Diameter of Bells.....inches	1½–2–2½	3½–4–5	5–6–8
Size Pipe..... inches	1	2	3
Number of Whistles to Chime.....	3	3	3
Price, Three Whistle Chime.....each	22.00	40.00	109.00

FIG. 829

CHIME AIR PUMP WHISTLE AND PUMP COMBINED.

Diameter of Pump.....inches	5
Height of Pump..... .. ..inches	17
Height Over All.....inches	30
Price, Complete, Finished..... each	15.00
Price, Complete, Nickel Plated.....each	18.00

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WHISTLE VALVES.

Automatic Balanced Whistle Valves

For 175 Pounds Working Pressure.

SCREWED.

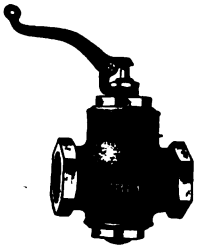

FIG. 830.

FLANGED

FIG. 831.

Automatic Balanced Whistle Valves, Screwed.

Size ..... inches	1	1¼	1½	2	2½	3
Price ..... each	18.00	22.00	26.60	35.50	44.40	62.20
End to End ..... inches	3¾	4 5/16	4⅞	6 7/16	7⅛	7¾

Automatic Balanced Whistle Valves, Flanged.

Size ..... inches	1	1¼	1½	2	2½	3
Price ..... each	22.20	27.50	33.60	43.80	53.20	77.00
Diameter of Flanges ..... inches	4	4½	5	6	7	7½
Face to Face ..... inches	3¾	4 5/16	4⅞	6 7/16	7⅛	7¾

Can furnish Extra Heavy Whistle Valves for 350 pounds working pressure.

FIG. 832.

Standard Whistle Valves.

Size ..... inches	⅜	½	¾	1	1¼	1½	2	2½	3
Price ..... each	2.00	2.50	3.00	3.50	5.00	6.00	9.00	18.00	27.00
Price, Iron Body ..... each	.....	.....	.....	.....	.....	.....	.....	15.00	18.00

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WATER GAUGES.

FOR EXPANSION TANKS. BRONZED ROUND BODY, TWO GUARDS.

FIG. 833.

BRONZED ROUND BODY, IRON WHEELS, TWO GUARDS.

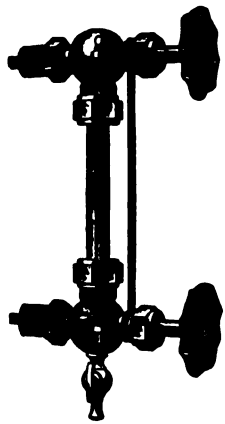

FIG. 834.

FINISHED ROUND BODY, WOOD WHEELS, TWO GUARDS.

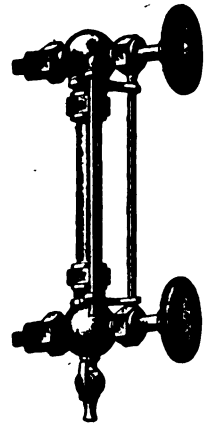

FIG. 835.

Expansion Tank Gauges.

Number	0000
Size, Thread.. inches	½
Size, Glass inches	⅝x12
Price each	2.60

Bronzed Round Body, Iron Wheels, Two Guard.

Number	000	1	1½
Size, Thread inches	⅜	½	¾
Size, Glass inches	⅝x10	⅝x12	¾x16
Price each	2.75	3.00	4.50

Finished Round Body, Wood Wheels, Two Guard.

Number	0	3	7½
Size, Thread inches	⅜	½	¾
Size, Glass inches	⅝x10	⅝x12	¾x16
Price each	3.75	4.25	5.50

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WATER GAUGES.

FINISHED ROUND BODY, WOOD WHEELS, FOUR GUARDS.

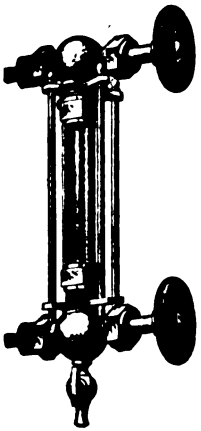

FIG. 836.

FINISHED SQUARE BODY, WOOD WHEELS, FOUR GUARDS.

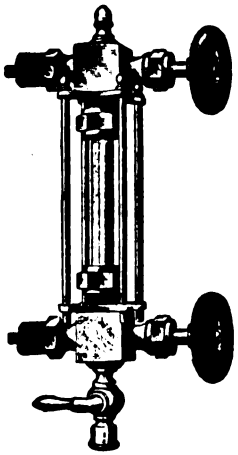

FIG. 837.

FINISHED ROUND BODY, WOOD WHEELS, FOUR GUARDS.

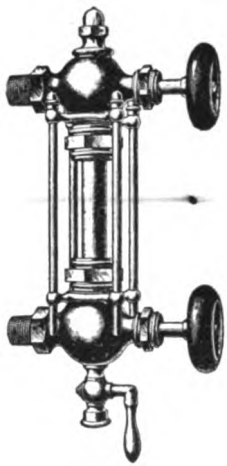

FIG. 838.

Finished Round Body, Wood Wheels, Four Guards.

Number	5	7
Size, Thread, inches	½	¾
Size, Glass, inches	⅝x12	¾x16
Price, each	5.25	6.00

Finished Square Body, Wood Wheels, Four Guards.

Number	9	9½	10
Size, Thread, inches	¼	¾	¾
Size, Glass, inches	⅝x12	¾x16	¾x16
Price, each	6.00	8.00	10.00

Finished Round Body, Wood Wheels, Four Guards.

Number	12	14
Size, Thread, inches	½	¾
Size, Glass, inches	⅝x12	¾x16
Price, each	12.00	15.00

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LUNKENHEIMER'S WATER GAUGES.

With Regrinding Valves.

BRONZED ROUND BODY, IRON WHEELS.

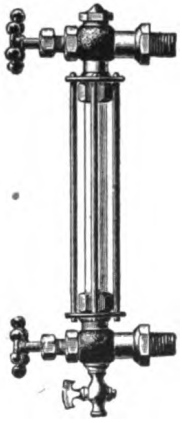

FIG. 639.

BRONZED BODY, AUTOMATIC, SELF-CLOSING.

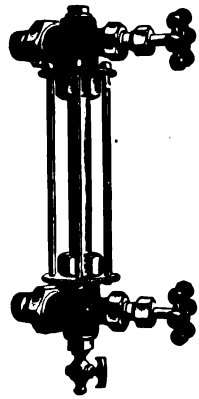

FIG. 640.

SECTIONAL OF UPPER VALVE, AUTOMATIC GAUGE.

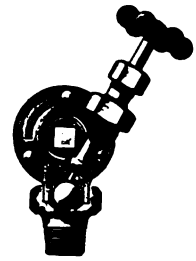

FIG. 641.

Bronzed Round Body, Iron Wheels, Three and Four Guards.

Size, Thread.....inches	⅜	½	¾
Size, Glass.....inches	½x10	⅝x12	¾x16
Price, Three Guards.....each	3.50	4.00	8.00
Price, Four Guards.....each	.....	5.00	8.50

Finished Round Body, Iron Wheels, Three and Four Guards.

Size, Thread.....inches	½	¾
Size, Glass.....inches	⅝x12	¾x16
Price, Three Guards.....each	5.00	9.50
Price, Four Guards.....each	6.50	10.00

Bronzed and Finished Body, Automatic Water Gauges.

Size, Thread.....inches	½	¾
Size, Glass.....inches	⅝x12	¾x16
Price, Bronzed Body, Iron Wheels.....each	12.00	12.00
Price, Finished Body, Wood Wheels.....each	14.50	14.50

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

WATER GAUGES.

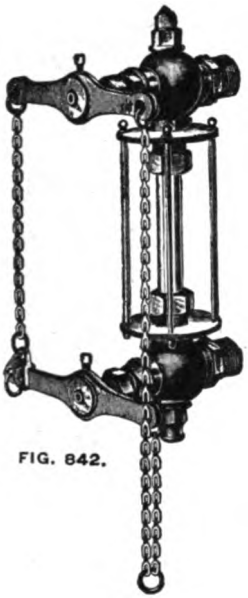

FIG. 842.

Chain Lever Water Gauges.

Size, Thread.....inches	⅜
Size, Glass.....inches	¾. Any length up to 20
Price, Finished.....each	20.00
Price, Nickel Plated.....each	24.00

Automatic Self-Closing "Autogauge."

For Steam Automobiles.

FRONT VIEW.

FIG. 843.

SIDE VIEW.

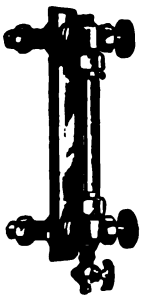

FIG. 844.

Size, Thread.....inches	⅛
Size, Glass.....inches	½x6
Price, Finished.....each	8.30
Price, Finished, With Stiffening Plate.....each	10.30
Price, Nickel Plated.....each	9.30
Price, Nickel Plated, With Stiffening Plate.....each	11.30

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GAUGE GLASSES.

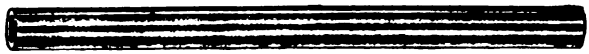

FIG. 845.

Length.....inches	10	11	12	13	14	15	16	17	18
Price, ¼ and ⅜ inches....per dozen	3.00	3.24	3.60	3.84	4.20	4.44	4.80	5.04	5.40
Price, ½ inch.....per dozen	3.60	3.96	4.32	4.80	5.16	5.52	5.88	6.24	6.60
Price, ⅝ inch.....per dozen	5.04	5.64	6.12	6.60	7.08	7.56	8.16	8.64	9.12
Price, 1 inch.....per dozen	6.12	6.72	7.32	7.92	8.52	9.12	9.72	10.32	10.92

Length..... inches	19	20	22	24	30	36	48	60	72
Price, ¼ and ⅜ inches....per dozen	5.64	6.00	6.60	7.20	9.00	10.80	14.52	18.12	21.84
Price, ½ inch.....per dozen	7.08	7.44	8.16	8.88	11.16	13.44	18.00	22.56	27.12
Price, ⅝ inch.....per dozen	9.60	10.20	11.16	12.12	15.24	18.24	24.36	30.48	36.48
Price, 1 inch..... per dozen	11.52	12.12	13.44	14.64	18.24	21.96	29.16	36.48	43.80

60x14 inches, per dozen, $60.00.

Red Reflecting Gauge Glasses.

Length.....inches	10	11	12	13	14	15	16	17
Price, ⅜ inch...per dozen	4.80	4.80	5.40	5.40	6.00	6.60	7.20	7.80
Price, ½ inch...per dozen	6.00	6.60	6.60	6.60	7.20	7.20	7.80	8.40

Length.....inches	18	19	20	22	24	30	36	.....
Price, ⅜ inch...per dozen	8.40	9.00	9.60	10.80	12.00	22.00	28.00	.....
Price, ½ inch...per dozen	9.00	9.60	10.20	11.40	12.60	24.00	32.00	.....

GLASS TUBE CUTTERS.

CHESTERTON.

FIG. 846.

FAVORITE.

FIG. 847.

Price, Chesterton.....each	2.00
Price, Favorite.....each	.60
Price, Extra Cutter Wheels.....each	.20

Brass Guards For Water Gauges.

Price, 14½ inches long.....each	.08
Price, 17½ inches long.....each	.15

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 305

GAUGE GLASS WASHERS.

ROUND.

FIG. 848.

HALF ROUND.

FIG. 849.

SQUARE.

FIG. 850.

Size.....inches	½	⅝	¾	1
Price, Round.....per dozen	.25	.25	.35	.50
Price, Half Round.....per dozen	.25	.25	.35	.50
Price, Square.....per dozen	.25	.25	.35	.50
Price, Square, Extra Heavy.....per dozen	.50	.50	.70	1.00

Fusible Plugs.

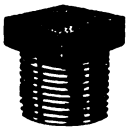

FIG. 851.

THESE PLUGS ARE MADE TO FULFILL THE REQUIREMENTS OF SECTION 4436 OF THE U. S. REVISED STATUTES AND IN ALL DETAILS WITH SECTION 26, RULE 2, REGULATIONS OF THE BOARD OF U. S. SUPERVISING INSPECTORS OF STEAM VESSELS.

LONG.

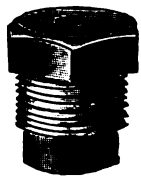

FIG. 852.

Size.....inches	½	¾	1	1¼	1½	2
Price.....each	.60	.75	1.00	1.50	2.00	3.00
Price, Long.....each	.....	2.00	2.50	.....	.....	.....

Low Water Alarms.

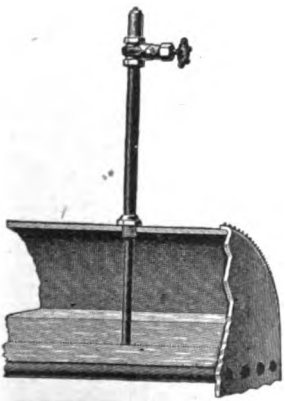

FIG. 853.

STYLE "M."

FIG. 854.

Price.....each	7.00
Price, Style M.....each	15.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

COMBINATION WATER AND STEAM GAUGES.

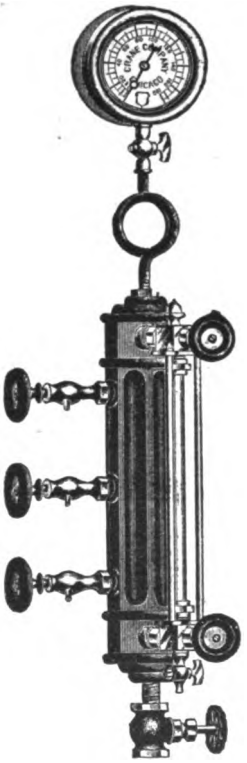

FIG. 855.

Number	1	2	3	4
Center to Center of Boiler Connections.....inches	10	12½	14	18
Center to Center of Water Gauge Connections..inches	10	12½	14	18
Center to Center of Gauge Cocks.....inches	3⅜	3⅜	4½	4
Extreme Length..... inches	13	16½	18¾	22½
Tapped for Boiler Connections..... .....inches	½	¾	1	1¼
Tapped for Water Gauge Connections.....inches	½	¾	¾	¾
Tapped for Gauge Cocks..... .....inches	½	½	½	¾
Top and Bottom Tapped..... inches	½	½	¾	1¼
Price, Bodies Only .....each	2.75	4.00	6.00	8.00
Price, Combinations, Complete.....each	25.00	40.00	50.00	60.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

"RELIANCE" SAFETY WATER COLUMNS.

GOVERMENT COLUMN.

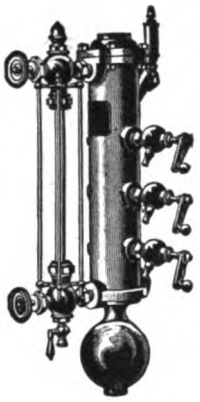

FIG. 856.

No. 1 1-2 COLUMN.

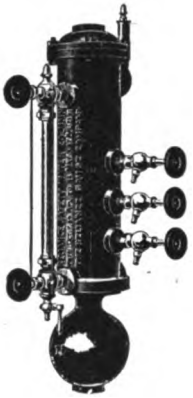

FIG. 857

COMBINED HIGH AND LOW WATER ALARMS.					GENERAL DIMENSIONS, INCHES.							
Number of Column.	Kind and Size of Boiler, Inches.	Variation Between Alarms, Inches.	Price, Columns Only, Each.	Price, Water Gauge and Gauge Cocks.	Steam and Water Connections.	Blow Off.	Water Gauge.	Gauge Glass.	Gauge Cocks, Centers.	Gauge Cocks.	Center of Water Connection to Top of Column.	Diameter of Column.	Length Over All.
1	36 to 54	6	28.00	7.00	1	½	½x14	⅝x12	3	½	16	3¾	23½
1½	36 to 54	6	28.00	7.00	1¼	½	½x14	⅝x12	3	½	19¾	5	28½
5	54 to 72	8	30.00	10.00	1¼	½	½x18	⅝x16	4	½	20½	4½	29½
7	Water Tube	12	35.00	10.00	1½	½	½x21	⅝x19	6	½	26	5½	36
9	Vertical	18	40.00	10.00	1½	1	½x26½	⅝x24	9	½	33½	5½	44
11	Vertical	24	42.50	12.50	1½	1	½x32½	⅝x30	12	½	46½	5	58
13	Vertical	30	45.00	20.00	1½	1	½x38½	⅝x36	10	½	52½	5	64
15	Vertical	36	50.00	20.00	1½	1	½x44½	⅝x42	12	½	58½	5	70
LOW WATER ALARMS.					GENERAL DIMENSIONS, INCHES.							
2	36 to 54	.....	25.00	7.00	1	½	½x14	⅝x12	3	½	16	3¾	23½
6	54 to 72	.....	28.00	10.00	1¼	½	½x16	⅝x14	4	½	18½	4½	27½
8	Vertical	.....	35.00	10.00	1½	½	½x21	⅝x19	6	½	26	5½	36

Nos. 13 and 15, two glasses joined at center with stuffing box. Four gauge cocks.

☞ NOTE.—In ordering never fail to state whether the gauge cocks should be at the right or left of the water gauge. Columns with the cocks at the right of the water gauge are RIGHT HAND COLUMNS, and those with the cocks at the left of the water gauge are LEFT HAND COLUMNS. The columns shown above are right hand columns. Larger sizes made to order.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

"WRIGHT" SAFETY WATER COLUMNS.

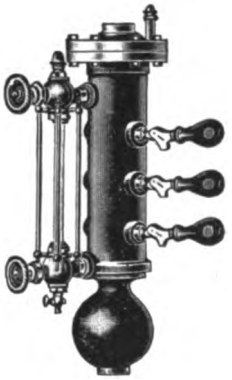

FIG. 858

COMBINED HIGH AND LOW WATER ALARMS.					GENERAL DIMENSIONS, INCHES.								
Number of Column.	Kind and Size of Boiler, Inches.	Variation Between Alarms, Inches.	Price, Columns Only, Each.	Price, Water Gauge and Gauge Cocks.	Steam and Water Connections.	Blow Off.	Water Gauge.	Gauge Glass.	Gauge Cocks, Centers.	Gauge Cocks.	Center of Water Connection to Top of Column.	Diameter of Column.	Length Over All.
1	36 to 54	6	$8.00	7.00	1		½x14	⅝x12	3	½	17	4½	24¾
5	56 to 72	8	30.00	10.00	1¼		¾x15	⅞x13	4	¾	21	5	30
7	Water Tube,	12	35.00	10.00	1½		¾x18	⅞x16	6	¾	24	5	33½
9	Others determined	18	40.00	10.00	1½	1	¾x24	⅞x22	9	¾	30	5	39
11	by natural variation of water in	24	42.50	12.50	1½	1	¾x30	⅞x28	12	¾	36	5	45
13	boiler.	30	45.00	20.00	1½	1	¾x36	⅞x34	10	¾	42½	5	51
15	See Note.	36	50.00	20.00	1½	1	¾x42	⅞x40	12	¾	48½	5	57
LOW WATER ALARMS.					GENERAL DIMENSIONS, INCHES.								
2	36 to 54	.....	25.00	7.00	1	¾	½x14	⅝x12	3	½	17	4½	24¾
6	54 to 72	.....	28.00	10.00	1¼	¾	¾x15	⅞x13	4	¾	20	5	29
8	Water Tube	.....	35.00	10.00	1½	¾	¾x18	⅞x16	6	¾	24	5	33

Nos. 13 and 15, two glasses joined at center with stuffing box. Four gauge cocks.

NOTE.—The size of the Column is in all cases determined by the natural variation of the water in the boiler on which it is to be used. No mistake will be made, ordinarily, by selecting a Column having the extreme gauge cocks the same distance apart as on the Column used on the boiler on which it is to be used.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SAFETY WATER COLUMNS.

"MONARCH."

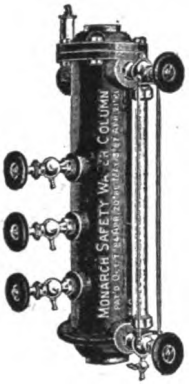

FIG. 859.

"VICTOR."

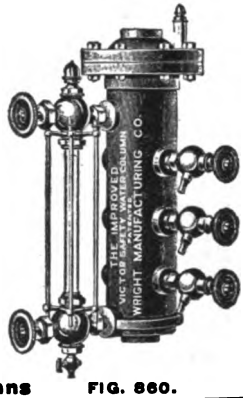

FIG. 860.

"Monarch" Water Columns

COMBINED HIGH AND LOW WATER ALARMS.				GENERAL DIMENSIONS, INCHES.						
Number of Column.	Variation Between Alarms, Inches.	Price, Column Only, Each.	Price, Water Gauge and Gauge Cocks.	Steam and Water Connections.	Water Gauge.	Gauge Glass.	Gauge Cock Centers.	Gauge Cocks.	Extreme Length.	Side Water Connection to Top.
14	6	14.00	3.00	1	½x14	⅝x12	3	½	19½	17½
16	8	16.00	3.50	1¼	¾x18	¾x16	4	¾	23½	21½
18	12	18.00	4.00	1½	¾x22	¾x20	6	¾	27½	25½
LOW WATER ALARMS.				GENERAL DIMENSIONS, INCHES.						
10	.....	10.00	3.00	1	½x14	⅝x12	3	½	19½	17½
12	.....	12.00	3.50	1¼	¾x18	¾x16	4	¾	23½	21½

"Victor" Junior Water Columns

LOW WATER ALARMS.	GENERAL DIMENSIONS, INCHES.							
Price, Column Only, Each.	Steam and Water Connections.	Gauge Cock Centers.	Water Gauge Centers.	Water and Gauge Cocks, Tapped.	Length Over All.	Width of Flanges.	Thickness of Flanges.	Number and Size of Bolts.
18.00	1	4	8	½	13	6½	¾	4–½

"Victor" Columns, same list as "Wright."

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

"WRIGHT" SAFETY WATER COLUMNS.

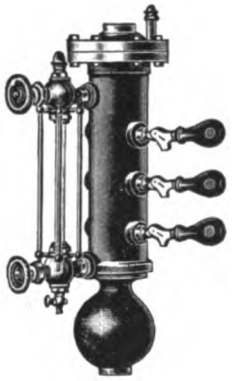

FIG. 858

COMBINED HIGH AND LOW WATER ALARMS.					GENERAL DIMENSIONS, INCHES.								
Number of Column.	Kind and Size of Boiler, Inches.	Variation Between Alarms, Inches.	Price, Columns Only, Each.	Price, Water Gauge and Gauge Cocks.	Steam and Water Connections.	Blow Off.	Water Gauge.	Gauge Glass.	Gauge Cocks, Centers.	Gauge Cocks.	Center of Water Connection to Top of Column.	Diameter of Column.	Length Over All.
1	36 to 54	6	$8.00	7.00	1		½x14	⅝x12	3	½	17	4½	24¾
5	56 to 72	8	30.00	10.00	1¼		¾x15	⅝x13	4	¾	21	5	30
7	Water Tube,	12	35.00	10.00	1½		¾x18	⅝x16	6	¾	24	5	33½
9	Others determined	18	40.00	10.00	1½	1	⅞x24	⅝x22	9	¾	30	5	39
11	by natural variation of water in	24	42.50	12.50	1½	1	⅞x30	⅝x28	12	¾	36	5	45
13	boiler.	30	45.00	20.00	1½	1	⅞x36	⅝x34	10	¾	42½	5	51
15	See Note.	36	50.00	20.00	1½	1	⅞x42	⅝x40	12	¾	48½	5	57
LOW WATER ALARMS.					GENERAL DIMENSIONS, INCHES.								
2	36 to 54	.....	25.00	7.00	1	¾	½x14	⅝x12	3	½	17	4½	24¾
6	54 to 72	.....	28.00	10.00	1¼	¾	¾x15	⅝x13	4	¾	20	5	29
8	Water Tube	.....	35.00	10.00	1½	¾	¾x18	⅝x16	6	¾	24	5	33

Nos. 13 and 15, two glasses joined at center with stuffing box. Four gauge cocks.

NOTE.—The size of the Column is in all cases determined by the natural variation of the water in the boiler on which it is to be used. No mistake will be made, ordinarily, by selecting a Column having the extreme gauge cocks the same distance apart as on the Column used on the boiler on which it is to be used.

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THE W. M. PATTISON SUPPLY CO. 309 CLEVELAND

SAFETY WATER COLUMNS.

"MONARCH."

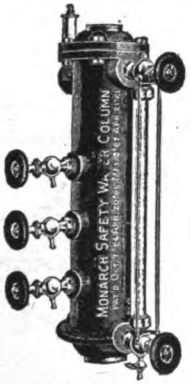

FIG. 859.

"VICTOR."

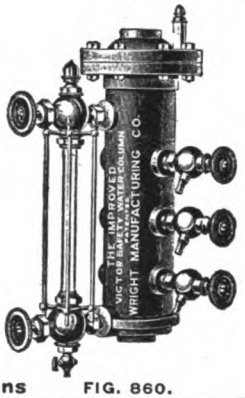

FIG. 860.

"Monarch" Water Columns

COMBINED HIGH AND LOW WATER ALARMS.				GENERAL DIMENSIONS, INCHES.						
Number of Column.	Variation Between Alarms, Inches.	Price, Columns Only, Each.	Price, Water Gauge and Gauge Cocks.	Steam and Water Connections.	Water Gauge.	Gauge Glass.	Gauge Cock Centers.	Gauge Cocks.	Extreme Length.	Side Water Connection to Top.
14	6	14.00	3.00	1	½x14	⅝x12	3	½	19½	17½
16	8	16.00	3.50	1¼	¾x18	¾x16	4	¾	23½	21½
18	12	18.00	4.00	1½	¾x22	¾x20	6	¾	27½	25½
LOW WATER ALARMS.				GENERAL DIMENSIONS, INCHES.						
10	.....	10.00	3.00	1	½x14	⅝x12	3	½	19½	17½
12	.....	12.00	3.50	1¼	¾x18	¾x16	4	¾	23½	21½

"Victor" Junior Water Columns

LOW WATER ALARMS.	GENERAL DIMENSIONS, INCHES.							
Price, Column Only, Each.	Steam and Water Connections.	Gauge Cock Centers.	Water Gauge Centers.	Water and Gauge Cocks, Tapped.	Length Over All.	Width of Flanges.	Thickness of Flanges.	Number and Size of Bolts.
18.00	1	4	8	½	13	6½	¾	4–½

"Victor" Columns, same list as "Wright."

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

GAUGES.

STEAM OR PRESSURE, GRADUATED NOT OVER 500 POUNDS.

FIG. 861.

VACUUM, GRADUATED TO 30 INCHES.

FIG. 862.

Steam and Vacuum Gauges.

Size, Dial.....inches	12	10	8½	6¾	6
Price, Iron Case, Single Spring.....each	50.00	32.00	22.00	16.00	13.00
Price, Brass Case, Single Spring.....each	75.00	40.00	30.00	20.00	16.00
Price, Iron Case, Auxiliary Spring.....each	55.00	37.00	25.00	18.00	15.00
Price, Brass Case, Auxiliary Spring.....each	80.00	45.00	34.00	22.00	18.00
Price, Iron Case, Nickel Plated Ring, Extra, each	1.50	1.00	.75	.60	.50
Price, Brass Case, Nickel Plated, Extra..each	4.00	3.00	2.50	2.00	1.50

Size, Dial.....inches	5½	5	4½	3½	2½
Price, Iron Case, Single Spring.....each	10.00	8.00	8.00	7.00	6.00
Price, Brass Case, Single Spring.....each	12.00	11.00	10.00	9.00	8.00
Price, Iron Case, Auxiliary Spring.....each	12.00	11.00	10.00	.....	.....
Price, Brass Case, Auxiliary Spring.....each	14.00	13.00	12.00	.....	.....
Price, Iron Case, Nickel Plated Ring, Extra, each	.25	.20	.20	.18	.15
Price, Brass Case, Nickel Plated, Extra....each	1.25	1.00	1.00	.75	.60

Double Spring Gauges, same list.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 311

COMPOUND PRESSURE AND VACUUM.

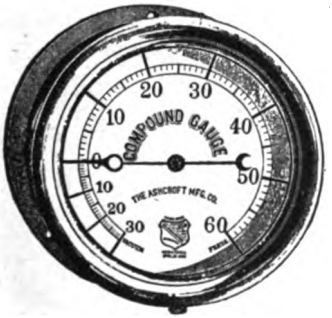

FIG. 863.

COMBINATION WATER WORKS.

FIG. 864.

Compound Pressure and Vacuum Gauges.

Size, Dial.....inches	12	10	8½	6¾	6	5½	5	4½	3½
Price, Iron Case.....each	60.00	40.00	30.00	20.00	16.00	14.00	14.00	12.00	10.00
Price, Brass Case.....each	80.00	50.00	40.00	25.00	20.00	16.00	16.00	14.00	12.00
Price, Iron Case, Nickel Plated Ring, Extra..each	1.50	1.00	.75	.60	.50	.25	.25	.20	.18
Price, Brass Case, Nickel Plated, Extra.....each	4.00	3.00	2.50	2.00	1.50	1.25	1.25	1.00	.75

Combination Water Works Gauges.

Size, Dial.....inches	12	10	8½	6¾	6	5½	5	4½
Price, Iron Case.....each	60.00	40.00	30.00	20.00	16.00	14.00	12.00	12.00
Price, Brass Case.....each	80.00	50.00	40.00	25.00	20.00	16.00	14.00	14.00
Price, Iron Case, Nickel Plated Ring.....each	1.50	1.00	.75	.60	.50	.25	.20	.20
Price, Brass Case, Nickel Plated.....each	4.00	3.00	2.50	2.00	1.50	1.25	1.00	1.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 312

GAUGES.

PYROMETER

FIG. 665.

ALTITUDE.

FIG. 666.

Pyrometer Gauges.

Size, Dial.....inches	12	10	8½	6¾	6	5½
Price, Iron Case.....each	60.00	40.00	30.00	20.00	16.00	14.00
Price, Brass Case.....each	80.00	50.00	40.00	25.00	20.00	16.00
Price, Iron Case, Nickel Plated Ring, Extra.....each	1.50	1.00	.75	.60	.50	.25
Price, Brass Case, Nickel Plated, Extra..each	4.00	3.00	2.50	2.00	1.50	1.25

Altitude Gauges.

Size, Dial.....inches	12	10	8½	6¾	6	5½	5	4½
Price, Iron Case.....each	60.00	40.00	30.00	20.00	16.00	14.00	12.00	12.00
Price, Brass Case.....each	80.00	50.00	40.00	25.00	20.00	16.00	14.00	14.00
Price, Iron Case, Nickel Plated Ring, Extra .each	1.50	1.00	.75	.60	.50	.25	.20	.20
Price, Brass Case, Nickel Plated, Extra.....each	4.00	3.00	2.50	2.00	1.50	1.25	1.00	1.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 313

HYDRAULIC,
GRADUATED 20,000 POUNDS.

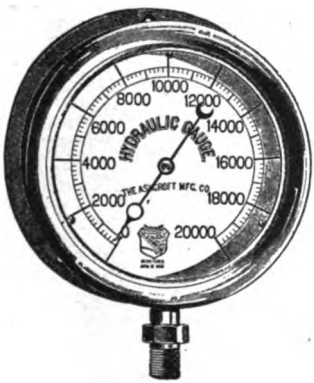

FIG. 867.

TEST,
GRADUATED NOT OVER 1,000 POUNDS.

FIG. 868.

Hydraulic Gauges.

Size, Dial.....inches	12	10	8½	6¾	6	5	4½	3½
Price, Iron Case.....each	110.00	90.00	70.00	50.00	35.00	30.00	25.00	22.00
Price, Brass Case.....each	125.00	100.00	80.00	60.00	40.00	35.00	30.00	26.00
Price, Iron Case, Nickel Plated Ring, Extra. each	1.50	1.00	.75	.60	.50	.50	.50	.50
Price, Brass Case, Nickel Plated, Extra...each	4.00	3.00	2.50	2.00	1.50	1.00	1.00	.75

Maxiumum Hand $5.00 Extra.

Test Gauges.

Size, Dial .....inches	10	8½	6¾	6	5½	4½	3½	3
Price, Brass Case.....each	50.00	40.00	30.00	25.00	20.00	16.00	14.00	14.00
Price, Brass Case, Nickel Plated, Extra .....each	3.00	2.50	2.00	1.50	1.25	1.00	.75	.60

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PRESSURE RECORDING AND ALARM GAUGES.

EDSON No. 1.

FIG. 869.

BRISTOL.

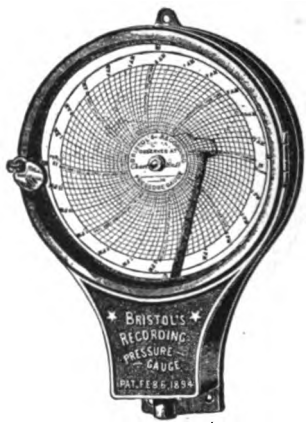

FIG. 870.

Edson Gauges.

Number.....	1		2		3
Description.....	High or Low Pressure Alarm	High and Low Pressure Alarm	High and Low Pressure Alarm To Ring at a distance	High or Low Pressure Alarm To Ring at a distance	No Alarm
Price .....each	85.00	90.00	80.00	85.00	75.00

Prices include one years supply of Charts and Album for filing same.

Bristol Gauges.

Price, Nickel Plated, with Ink and 100 Charts	each	50.00
Price, With Electric Alarm Attachment, Extra	each	10.00
Price, Additional Charts	per hundred	.75
Price, Additional Charts Printed with Copying Ink	per hundred	.85
Price, Special Ink	per bottle	.35

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THE W M PATTISON SUPPLY CO CLEVELAND

REVOLUTION COUNTERS.

ROUND.

FIG 871.

SQUARE.

FIG. 872.

Round Case Revolution Counters.

Size, Dial .....inches	12	10	8½	12	10	8½	6¾
Number of Wheels.....	8	8	8	6	6	6	6
Price, Brass Case.....each	110.00	95.00	80.00	100.00	85.00	70.00	60.00
Price, Brass Case, Nickel Plated...each	114.00	98.00	82.50	104.00	88.00	72.50	62.00

Square Case Revolution Counters.

Size.....inches	4½x1¾	5x1¾	5½x1¾	6x1¾
Number of Figures.....	4	5	6	7
Register.....	10,000	100,000	1,000,000	10,000,000
Price, Plain..... .....each	17.50	20.00	24.00	28.00
Price, Resetting... ..... each	21.50	24.00	28.00	32.00
Size.....inches	7x2½	8x2½	9x2½	10x2½
Number of Figures.....	4	5	6	7
Register.....	10,000	100,000	1,000,000	10,000,000
Price, Plain.....each	20.00	24.00	28.00	32.00
Price, Resetting.....each	24.00	28.00	32.00	36.00

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COUNTERS.

FOR LINEAL MEASURE.

WITH LEVER

FIG. 873.

FIG. 874.

Number	1	1	1	1	1
	With Lever.	With Lock Guard.	For Lineal Measure.	Linometer, Linotype Attachment.	Linometer, Linotype Attachment, Lock Guard.
Number of Dials....	4	4	4	4	4
Register.....	10,000	10,000	10,000	10,000	10,000
Price .....each	8.00	10.00	18.00	9.50	11.50

Number	2	2	2	2	2
	With Lever.	With Lock Guard.	With Alarm Set at Each Number.	With Alarm Set at 100.	For Lineal Measure.
Number of Dials....	5	5	5	5	5
Register.....	100,000	100,000	100,000	100,000	100,000
Price .....each	10.00	12.00	15.00	15.00	20.00

HAND COUNTERS.

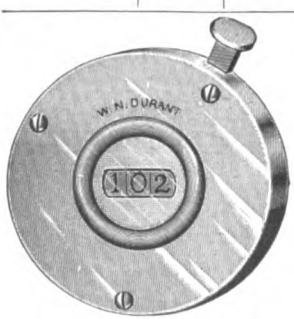

FIG. 875.

FIG. 876.

Price.....	3.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SPEED INDICATORS.

STARRETT HIGH SPEED.

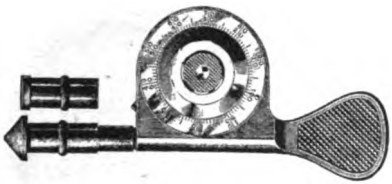

FIG. 877.

STARRETT IMPROVED.

FIG. 878.

Price, High Speed	each	1.00
Price, High Speed, in Leatherette Case	each	1.50
Price, High Speed with 7½ inch Spindle, Extra	each	.50
Price Improved	each	1.50
Price, Improved, in Leatherette Case	each	2.00

STARRETT REGISTERING.

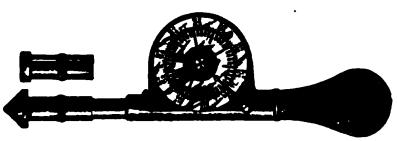

FIG. 879.

SINGLE SPEED.

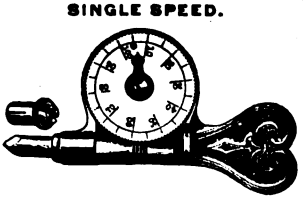

FIG. 880.

Price, Registering	each	3.00
Price, Registering, in Leatherette Case	each	3.50
Price, Single Speed, with Plain Cap	per dozen	10.00
Price, Single Speed, with Split Cap	per dozen	11.00

RIGHT AND LEFT REGISTER, IMPROVED, DOUBLE DIAL.

FIG. 881.

LIGHTNING.

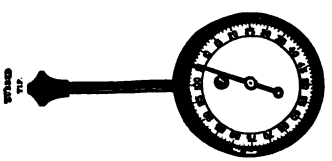

FIG. 882.

Price, Right and Left Register	each	1.50
Price, Lightning	each	2.00
Price, Lightning, in Leatherette Case	each	2.50

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TACHOMETERS.

STATIONARY.

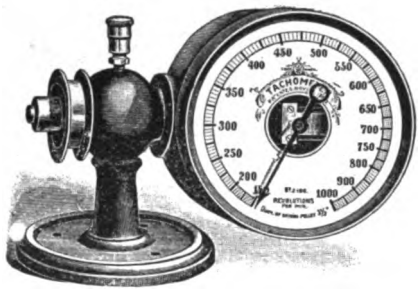

FIG. 883.

STATIONARY, RECORDING.

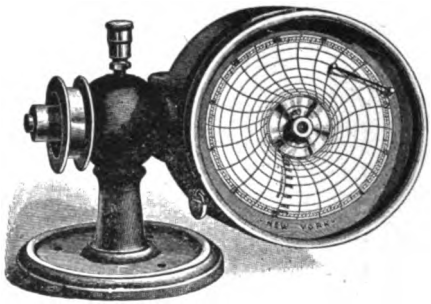

FIG. 884.

Size, Dial.....inches	10	7½	5½
Price, Stationary.....each		60.00	55.00
Price, Stationary, Recording.....each	120.00		

Stationary Tachometers are for revolutions up to 2,000 per minute.

SINGLE SCALE.

FIG. 885.

PORTABLE.

TRIPLE SCALE.

FIG. 886.

Size, Dial.....inches	3
Length.....inches	10
Price, Single Scale.....each	55.00
Price, Triple Scale.....each	60.00

In ordering, STATE SPEED REQUIRED.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

LIPPINCOTT INDICATORS, REDUCING WHEELS AND PLANIMETERS.

ENGINE INDICATOR.

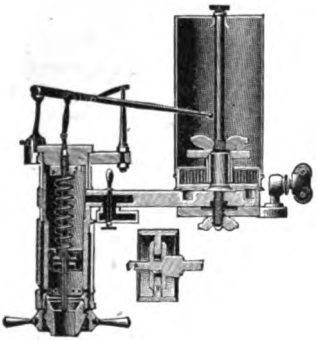

FIG 887.

REDUCING WHEEL.

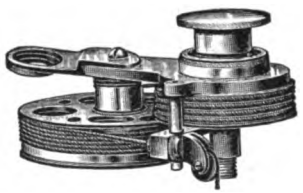

FIG. 888.

Price, Engine Indicators	each	60.00
Price, Reducing Wheels	each	15.00

Each Indicator is packed in a handsome hardwood case, velvet lined and trimmed with nickel plated handle and fittings. Price includes Indicator with three springs, two straight-way cocks, scale, cord and metallic points.

PISTON SPRING.

FIG. 889.

PLANIMETER.

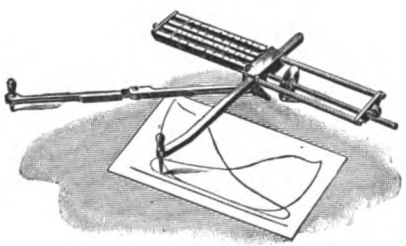

FIG. 890.

Price, Springs	each	5.00
Price, Planimeters	each	18.00

The Planimeter is packed in a velvet lined morocco leather case.

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INDICATOR COCKS AND CORNER FITTINGS.

STRAIGHTWAY INDICATOR COCK.

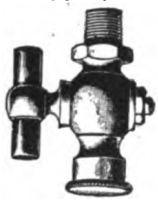

FIG. 891.

THREE-WAY INDICATOR COCK.

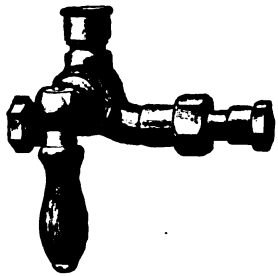

FIG. 892.

Size ..... inches	½
Price, Straightway, Finished ..... each	4.00
Price, Straightway, Nickel Plated ..... each	5.00
Price, Three-Way, Finished ..... each	10.00
Price, Three-Way, Nickel Plated ..... each	12.00

CORNER ELL.

FIG. 893.

CORNER VALVE.

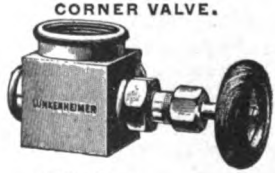

FIG. 894.

Size ..... inches	½	¾	1	1¼	1½	2	2½	3
Price, Corner Ell, Finished ..... each	2.70	3.00	3.30	3.70	4.20	5.00	6.40	8.70
Price, Corner Ell, Nickel Plated ... each	2.90	3.20	3.60	4.10	4.60	5.40	7.00	9.40
Price, Corner Valve, Finished ..... each	3.50	4.00	4.50	4.80	5.00	7.00	9.50	12.50
Price, Corner Valve, Nickel Plated, each	3.80	4.30	4.90	5.30	5.50	7.50	10.20	13.50

COMPLETE INDICATOR ATTACHMENT WITH RELIEF AND CORNER VALVES.

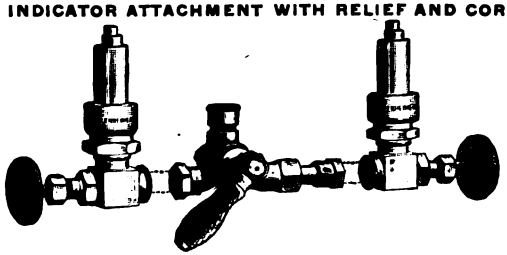

FIG. 895.

Size ..... inches	½	¾	1	1¼	1½	2	2½	3
Price, Finished, without Relief Valves .. each	23.00	24.00	25.00	25.60	27.00	34.00	42.00	50.00
Price, Nickel Plated, without Relief Vls, each	25.60	26.40	28.00	29.00	32.00	40.00	47.00	58.00
Price, Finished, with Relief Valves ... each	32.00	34.00	37.00	40.00	45.00	60.00	84.00	100.00
Price, Nickel Plated, with Relief Valves, each	36.00	38.00	42.00	46.00	53.00	70.00	94.00	110.00

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FIG. 896.

Size.	Price, Each.	Horse Power, Based on Ordinary Tubular Boiler.	Horse Power, Based on 30 lbs. Water per Horse Power, Per Hour.	Pipe Connections, Inches.	Capacity, Gallons per Hour, 1 to 3 feet lift, 60 to 85 lbs. Steam Pressure.	
					Maximum.	Minimum.
O	15.00	3 to 6	4 to 8	¼	60	40
OO	16.00	4 to 8	6 to 12	⅜	80	55
A	18.00	8 to 16	10 to 20	½	135	70
AA	20.00	12 to 22	15 to 30	½	180	100
B	25.00	17 to 32	22 to 45	¾	260	140
BB	30.00	20 to 45	25 to 60	¾	355	170
C	40.00	40 to 65	45 to 80	1	475	300
CC	45.00	45 to 80	50 to 100	1	600	350
D	55.00	50 to 100	60 to 135	1¼	800	425
DD	60.00	75 to 135	85 to 165	1¼	1000	525
E	75.00	100 to 180	125 to 235	1½	1400	800
EE	90.00	115 to 255	150 to 320	1½	1800	900
F	110.00	160 to 320	200 to 400	2	2400	1300
FF	125.00	200 to 400	250 to 500	2	3000	1600
G	150.00	300 to 500	325 to 600	2½	3600	2000
GG	200.00	375 to 600	400 to 750	2½	4200	2500

These Injectors can be furnished with connections, Right and Left, or Left and Right, when so ordered.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

"U. S." AUTOMATIC INJECTORS.

REGULAR PATTERN.

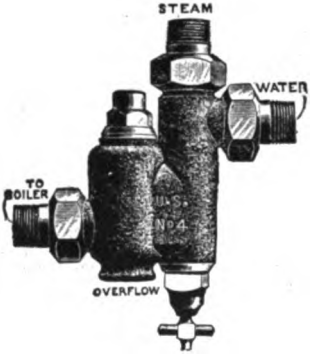

FIG. 897.

SPECIAL PATTERN.

FIG. 898.

Size.	Price, Each.	Horse Power.	Pipe Connections, Inches.	Capacity, Gallons per Hour.	
				Maximum.	Minimum.
00	13.00	1 to 4	¼	36	15
0	14.00	3 to 8	⅜	65	28
1	16.00	6 to 10	⅜	90	40
2	18.00	8 to 15	½	125	60
3	20.00	15 to 20	½	170	75
4	25.00	20 to 30	¾	250	125
5	30.00	30 to 40	¾	340	140
6	40.00	40 to 60	1	475	250
7	45.00	60 to 70	1	575	300
8	55.00	70 to 95	1¼	750	350
9	60.00	85 to 120	1¼	920	450
10	75.00	120 to 165	1½	1350	675
11	90.00	165 to 230	1½	1750	850
12	110.00	230 to 295	2	2275	1000
13	125.00	295 to 375	2	2820	1300
14	150.00	375 to 460	2	3400	1700
15	175.00	460 to 500	2½	3650	1800
16	200.00	500 to 600	2½	4000	1950

☞ Special Pattern Injectors are furnished only in the ½ and ¾ inch sizes. This Pattern is intended for Traction, Portable and Threshing Engines.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 323

"GARFIELD" INJECTORS.

AUTOMATIC.

FIG. 899.

DOUBLE JET.

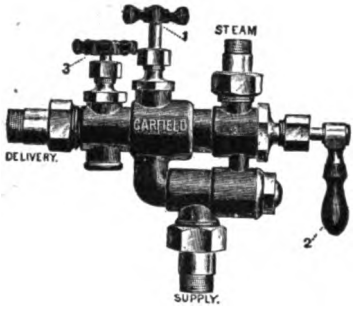

FIG. 900.

Size.	Price, Each.	Horse Power.	Pipe Connections, Inches.		Capacity, Gallons per Hour, 4 foot lift, 80 lbs. Steam Pressure.
			Steam.	Supply and Delivery.	
00	16.00	2 to 5	⅜	⅜	60
0	18.00	5 to 10	⅜	½	90
1	20.00	10 to 15	⅜	½	120
2	25.00	15 to 24	½	¾	220
3	30.00	24 to 35	½	¾	300
4	40.00	35 to 50	¾	1	420
5	45.00	50 to 65	¾	1	540
6	55.00	65 to 90	1	1¼	720
7	60.00	90 to 115	1	1¼	900
8	75.00	115 to 150	1¼	1½	1200
9	90.00	150 to 200	1¼	1½	1700
10	110.00	200 to 275	1½	2	2200
11	125.00	275 to 350	1½	2	2800
12	150.00	350 to 425	2	2½	3400
13	180.00	425 to 500	2	2½	4000
14	200.00	500 to 600	2	2½	4500

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"SELLER'S" RESTARTING INJECTORS.

FIG. 901.

Size.	Price, Screwed, Each.	Price, Flanged, Each.	Horse Power.	Pipe Connections, Inches.	Capacity, Gallons per Hour, 5 foot lift, 80 lbs. Steam Pressure.	
					Maximum.	Minimum.
16	18.00	21.00	2 to 6	⅜	56	35
20	21.00	24.00	6 to 10	⅜	95	56
23	23.50	27.50	10 to 15	½	127	64
27	26.50	30.50	15 to 20	½	176	86
33	33.00	38.00	20 to 30	¾	263	130
40	39.50	44.50	30 to 45	¾	386	165
45	50.00	56.00	45 to 65	1	488	204
50	59.00	65.00	65 to 90	1	603	253
57	70.00	77.50	80 to 120	1¼	784	329
64	78.00	85.50	100 to 140	1¼	988	395
75	95.00	104.50	140 to 175	1½	1350	594
86	115.00	124.50	175 to 240	1½	1773	780
98	140.00	150.00	240 to 300	2	2300	1010
110	160.00	172.00	300 to 400	2	2900	1276
120	180.00	194.00	400 to 950	2	3450	1520

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 325

"LUNKENHEIMER'S" AUTOMATIC INJECTORS.

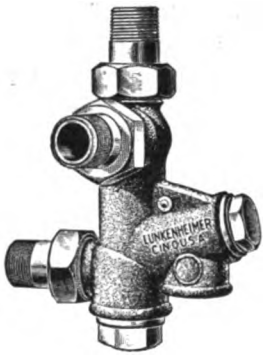

FIG. 902.

Size.	Price, Each.	Horse Power.	Pipe Connections, Inches.	Capacity, Gallons per Hour, 5 foot lift, Steam Pressure, 75, 85 and 95 lbs.			
				75 lbs. Pressure.	85 lbs. Pressure.	95 lbs. Pressure.	95 lbs. Pressure.
				Maximum.			Minimum.
2	18.00	10 to 15	½	117	124	130	65
2½	20.00	15 to 20	½	152	161	170	83
3	25.00	20 to 30	¾	205	217	230	110
3½	30.00	30 to 45	¾	245	275	300	120
4	40.00	45 to 65	1	410	426	450	160
4½	45.00	65 to 90	1	550	580	600	225
5	55.00	90 to 120	1¼	740	750	760	275
6	60.00	120 to 140	1¼	920	940	960	450
7	75.00	140 to 175	1½	1300	1320	1350	620
8	90.00	175 to 240	1½	1710	1740	1780	850
9	110.00	240 to 300	2	2265	2290	2340	1050
10	125.00	300 to 375	2	2860	2900	2950	1400

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"OHIO" INJECTORS.

FIG. 903.

Size.	Price, Each.	Horse Power.	Pipe Connections, Inches.	Capacity, Gallons per Hour, 4 foot lift, 80 lbs. Steam Pressure.
0	18.00	8 to 10	½	120
1	20.00	10 to 15	½	165
2	25.00	15 to 25	¾	250
3	30.00	25 to 35	¾	340
4	40.00	35 to 60	1	460
5	45.00	60 to 65	1	580

"U. S."

"PENBERTHY."

AUTOMOBILE INJECTORS.

FIG 904. "U. S." Injectors. FIG. 905.

Size.	Price, Each.	Horse Power.	Pipe Connections, Inches.	Starts Low at Pounds Pressure.	Works High to Pounds Pressure.	Capacity, Gallons per Hour.	
						Maximum.	Minimum.
00A	13.00	1 to 4	¼	30	165	36	15
00B	13.00	1 to 4	¼	40	200	36	15
00C	13.00	1 to 4	¼	45	250	36	15

"Penberthy" Injectors.

Size.	Price, Each.	Pipe Connections, Inches.	Starts Low at Pounds Pressure.	Works High to Pounds Pressure.	Capacity, Gallons per Hour.
022	15.00	¼	30 to 35	160	40 to 60
020	15.00	¼	35 to 40	200	40 to 60
019	15.00	¼	45 to 50	225	40 to 60

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THE W. M. PATTISON SUPPLY CO. CLEVELAND O.

"XL-96" EJECTOR OR JET PUMPS.

FIG. 906.

Lifts 20 to 24 Feet. Elevates 50 to 75 Feet.

Size.	Price, Brass, Each.	Price, Iron Body, Each.	Steam Connection, Inches.	Suction and Discharge, Inches.	CAPACITY, GALLONS PER HOUR.				VERTICAL LIFT, FEET.	
					3 Foot Lift.		50 Foot Elevation.	25 Foot Elevation.		
					STEAM PRESSURE, POUNDS.					
					40 to 65	20 to 40 or 65 to 100	40 to 65	40 to 65	40 to 75	25 to 40 or 75 to 100
1	8.00	.....	⅜	½	240	235	120	180	23	20
2	10.00	.....	½	¾	500	450	250	375	25	22
3	15.00	.....	¾	1	840	700	420	625	25	22
4	20.00	.....	1	1¼	1350	1300	650	950	24	21½
5	25.00	20.00	1	1½	1950	1850	975	1450	26	21½
6	35.00	27.50	1¼	2	3500	3000	1750	2600	26	21½
7	50.00	40.00	1½	2½	5700	4350	2500	3750	26	22
8	70.00	50.00	2	3	9500	8160	4750	7200	25	20
9	105.00	70.00	2	3½	13600	12400	6800	10200	25	21
10	145.00	95.00	2	4	18400	17100	9200	13800	25	21

Table Showing Size of Boilers Required for Jet Pumps.

Size of Ejector.....	1, 2, 3	4, 5, 6	7, 8	9, 10
Size Boiler, Horse Power.....	2 to 6	8 to 12	15 to 20	25 to 30

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"AMERICAN" EJECTORS.

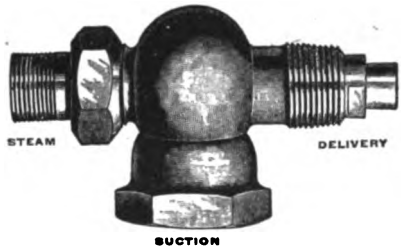

FIG. 907.

Size.	Price, Each.	Steam Connection, Inches.	Suction, Inches.	Discharge, Inches.	Capacity, Gallons per Hour.
000	6.00	¼	¾	¾	150
00	8.00	¼	¾	¾	250
0	9.00	¼	¾	¾	375
1	10.00	¼	1	1	750
2	15.00	¾	1¼	1	1000
3	20.00	1	1½	1¼	1500
4	25.00	1¼	2	1½	2000
5	35.00	1½	2½	2	4000
*6	40.00	2	3	2½	8000
*7	50.00	2	4	3	11000
*8	65.00	2½	5	4	15000
*9	175.00	2½	6	5	45000

*Sizes 6, 7, 8 and 9 are Iron Body, with Brass Jets.

Table Showing Where to Locate Ejectors.

STEAM PRESSURE, POUNDS.											
25		40		60		80		100		125	
Lifts, Feet.	Elevates, Feet.	Lifts, Feet.	Elevates, Feet.	Lifts, Feet.	Elevates, Feet.	Lifts, Feet.	Elevates, Feet.	Lifts, Feet.	Elevates, Feet.	Lifts, Feet.	Elevates, Feet.
10	11	22	20	20	36	18	55	17	61	15	76
5	13	15	27	15	43	15	59	15	63	10	83
.....	.....	5	29	10	48	10	61	10	66	5	90
.....	.....	.....	.....	5	50	5	66	5	73	.....	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 329

EJECTORS.

"GARFIELD."

FIG. 908.

"GLOBE."

FIG. 909.

"Garfield" Ejectors.

Size.	Price, Each.	PIPE CONNECTIONS, INCHES.			Diameter of Well, Inches.	Capacity, Gallons per Hour.
		Steam.	Suction.	Discharge.		
1	8.00	⅜	¾	½	2¼	300
2	10.00	⅜	1	¾	2¾	500
3	15.00	½	1¼	1	3	800
4	20.00	¾	1½	1¼	3½	1300
5	25.00	1	2	1½	4¼	2000
6	35.00	1¼	2½	2	5	3000
7	50.00	1½	3	2½	6	5000
8	60.00	1½	3	2½	6	6500

Table Showing Steam Pressure, Elevation and Size of Boilers Required for Ejectors--Lift About 6 Feet.

Size of Ejector	1	2	3	4	5	6	7	8
Steam Pressure.....pounds	30	40	50	60	70	80	90	100
Height, Elevated.....feet	20	30	40	55	60	70	85	90
Size Boiler, Horse Power	2	3	5	8	10	12	15	15

"Globe" Ejectors.

Size	1	2	*3	*4	*5	*6
Price.....each	4.00	5.00	6.00	8.00	12.00	15.00
Steam Connection.....inches	¼	½	¾	1	1¼	1½
Suction and Discharge.....inches	¾	1	1¼	1½	2	2½
Capacity, Gallons per Hour	500	900	1300	1800	2500	3500

*Sizes 3, 4, 5 and 6 are Iron Body, with Brass Jets and Connections.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 330

"AMERICAN" JET PUMPS.

FIG. 910.

Size	000	00	0	1	2	3	4	5	6	7	8
Price .....each	4.00	5.00	6.00	7.50	10.00	12.50	15.00	17.50	25.00	35.00	55.00
Steam Connection...inches	¼	¼	⅜	½	¾	1	1¼	1½	2	2	2½
Suction .....inches	⅜	½	¾	1	1¼	1½	2	2½	3	4	5
Discharge ....inches	⅜	⅜	½	¾	1	1¼	1½	2	2½	3	4
Capacity, Gallons per Hour...	150	250	375	500	1000	1500	2000	2800	3800	6500	10000

BRASS FOOT VALVES AND STRAINERS.

FOOT VALVE.

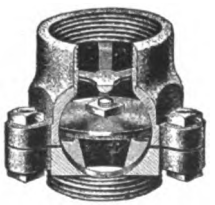

FIG. 911.

STRAINER.

FIG. 912.

Size .....inches	⅜	½	¾	1	1¼	1½	2
Price, Foot Valves.....each	1.25	1.25	1.50	2.00	2.50	3.00	3.50
Price, Strainers.....each	.40	.40	.50	.50	.60	.75	1.00

Strainers are furnished with either Iron Pipe or Hose Connection.

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GARDNER STEAM ENGINE GOVERNORS.

STANDARD, CLASS A.

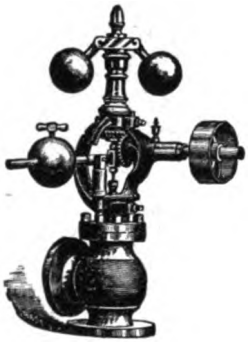

FIG. 913.

SPRING, CLASS A.

FIG. 914.

Class A, Standard.

Size.....inches	1¼	1½	2	2½	2½	3	3½	4
Price, Plain.....each	24.50	29.50	36.00	42.00	48.00	59.00	71.00	83.00
Price, Finished.....each	27.50	33.50	40.00	47.00	53.00	67.00	80.00	93.00

Size.....inches	4½	5	6	7	8	9	10	12
Price, Plain.....each	96.00	109.00	140.00	170.00	210.00	241.00	270.00	335.00
Price, Finished.....each	107.00	121.00	154.00	186.00	227.00	261.00	290.00	355.00

Class B, Standard.

Size.....inches	¾	1	1¼	1½	2	2½	2½	3
Price, Plain.....each	16.00	18.00	21.00	25.00	30.00	35.00	40.00	50.00
Price, Finished.....each	18.00	20.00	24.00	29.00	34.00	40.00	45.00	58.00

Size.....inches	3½	4	4½	5	6	7	8	9
Price, Plain.....each	60.00	71.00	83.00	94.00	122.00	150.00	185.00	215.00
Price, Finished.....each	69.00	81.00	94.00	106.00	136.00	166.00	202.00	235.00

Class A and B, Spring.

Size.....inches	½	¾	1	1¼	1½	2	2½	2½
Price, Class B, Plain.....each	14.00	16.00	18.00	21.00	25.00	30.00	35.00	40.00
Price, Class B, Finished...each	16.00	18.00	20.00	24.00	29.00	34.00	40.00	45.00
Price, Class A, Plain.....each	.....	.....	21.00	24.50	29.50	36.00	42.00	48.00
Price, Class A, Finished...each	.....	.....	23.00	27.50	33.50	40.00	47.00	53.00

Size.....inches	3	3½	4	4½	5	6	7	.....
Price, Class B, Plain.....each	50.00	60.00	71.00	83.00	94.00	122.00	150.00	.....
Price, Class B, Finished...each	58.00	69.00	81.00	94.00	106.00	136.00	166.00	.....
Price, Class A, Plain.....each	59.00	71.00	83.00	96.00	109.00	140.00	170.00	.....
Price, Class A, Finished...each	67.00	80.00	93.00	107.00	121.00	154.00	186.00	.....

Class A Governors have Automatic Stop. Class B have not.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

PICKERING STEAM ENGINE GOVERNORS.

CLASS A.

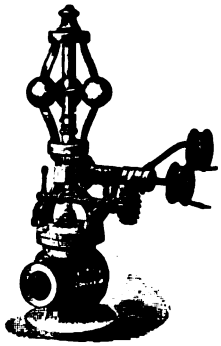

FIG. 915.

CLASS B.

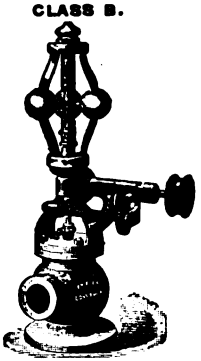

FIG. 916.

Size.....inches	½	¾	1	1¼	1½	2	2¼	2½	3
Price, Class B, Plain.....each	14.00	16.00	18.00	21.00	25.00	30.00	35.00	40.00	50.00
Price, Class B, Finished...each	16.00	18.00	20.00	24.00	29.00	34.00	40.00	45.00	58.00
Price, Class A, Plain.....each	.....	.....	21.00	24.50	29.50	36.00	42.00	48.00	59.00
Price, Class A, Finished...each	.....	.... ..	23.00	27.50	33.50	40.00	47.00	53.00	67.00

Size.....inches	3½	4	4½	5	6	7	8	9	10
Price, Class B, Plain.....each	60.00	71.00	83.00	94.00	122.00	150.00	185.00	215.00	240.00
Price, Class B, Finished ..each	69.00	81.00	94.00	106.00	136.00	166.00	202.00	235.00	260.00
Price, Class A, Plain.....each	71.00	83.00	96.00	109.00	140.00	170.00	210.00	241.00	270.00
Price, Class A, Finished...each	80.00	93.00	107.00	121.00	154.00	186.00	227.00	261.00	290.00

Class A Governors have Automatic Stop. Class B have not.

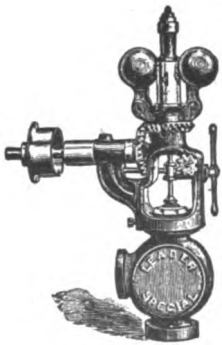

FIG. 917.

THE LEADER.

Perfected Spring Steam Engine Governor.

Size.....inches	⅜	½	¾	1	1¼	1½	2	2½	3
Price .....each	14.00	16.00	18.00	20.00	22.00	25.00	30.00	40.00	50.00
Price, Extra for Automatic Stop..each	.....	.....	3.00	3.00	3.00	4.00	4.00	5.00	5.00

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STEAM TRAPS.

Anderson.

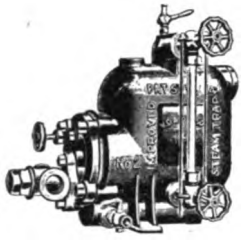

FIG. 918.

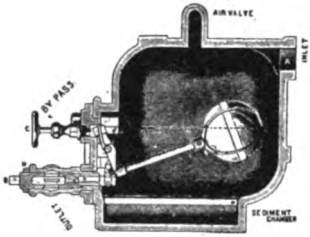

FIG. 919.

Size	1	2	3	4	5	6
Pipe Connections.....inches	½	¾	1	1¼	1½	2
Capacity, Lineal feet, 1 inch Pipe.....	1500	2500	4000	7000	10000	15000
Capacity, Square feet, Radiation.....	500	800	1350	2350	3500	5000
Maximum discharge per minute...lbs.	3	5	8	14	20	30
Price.....each	20.50	22.50	28.00	35.00	50.00	70.00

Will work against any pressure less than the pressure on trap.

When pressure below thirty pounds is to be used it should be so stated, so as to have the advantage of large valve outlet.

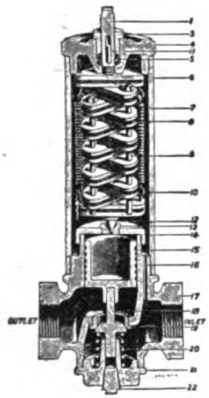

FIG. 920.

THERMOSTATIC STEAM TRAP.

The Bickel.

For High or Low Pressure.

Size	1	2	3	4	5	6
Pipe Connections.....inches	½	¾	1	1¼	1½	2
Capacity, Lineal feet, 1 inch Pipe.....	3000	6000	12000	23000	38000	80000
Capacity, Square feet, Radiation.....	1200	2000	3000	6000	8000	12000
Price.....each	18.00	25.00	35.00	45.00	60.00	80.00

Will discharge against any pressure less than head pressure. Can be placed on a line of pipe like an ordinary valve.

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STEAM TRAPS.

Kieley.

STANDARD.

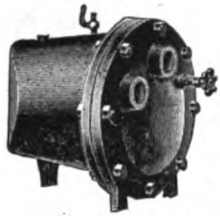

FIG. 921.

SECTIONAL.

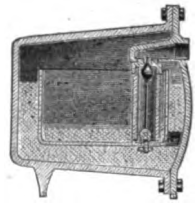

FIG. 922.

Standard High and Low Pressure and Extra Heavy

For Pressures from 1 to 250 Pounds.

Size	1	2	3	4	5	6	7
Pipe Connections.....inches	¾	1	1¼	1½	2	2½	3
Capacity, Lineal feet 1 inch Pipe.....	4000	6000	10000	15000	25000	35000	50000
Capacity, Square feet Radiation.....	1300	2000	3300	5000	8300	11500	16500
Capacity, Pounds of Water per hour.	500	725	1200	2000	3000	4000	6000
Price.....each	25.00	35.00	45.00	60.00	80.00	100.00	125.00

Standard Special Low Pressure, Balanced Valve.

Size	2	3	4	5	6
Pipe Connections.....inches	1	1¼	1½	2	2½
Capacity, Pounds of Water per hour.....	3100	4700	6300	8000	9500
Price.....each	35.00	45.00	60.00	80.00	100.00

For Grease or Oils.

Size	1	2	3	4	5	6	7
Pipe Connections.....inches	¾	1	1¼	1½	2	2½	3
Capacity, Pounds of Water per hour.	500	725	1200	2000	3000	4000	6000
Price.....each	25.00	35.00	45.00	60.00	80.00	100.00	125.00

Champion Return Steam Trap and Boiler Feeder--Not Illustrated.

Size	1	2	3	4
Inlet Connections.....	1	1¼	1½	2½
Outlet Connections.....	1½	2	2½	3 or 4
Capacity, Lineal feet, 1 inch Pipe..	4000 to 6000	8000 to 10000	15000 to 20000	30000 to 40000
Price, Taps only.....	100.00	150.00	200.00	300.00
Outlet of Receivers.....inches	1	1¼	1½	2½
Price, Receivers only..	10.00	16.00	24.00	40.00

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STEAM TRAPS.

Bundy.

GRAVITY RETURN.

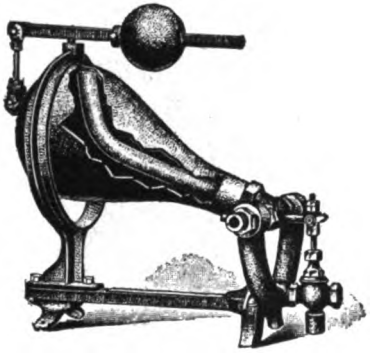

FIG. 923.

SEPARATING.

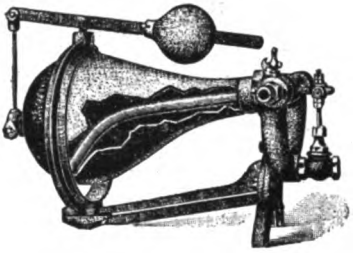

FIG. 924.

Gravity Return, for Pressure up to 100 Pounds.

Size	101	102	103	104	105	106	108
Steam Inlet.....inches	1	1¼	1½	1½	2	2	2½
Water Inlet and Outlet.....inches	1	1¼	1½	2	2½	3	4
Capacity, Lineal feet, 1 inch Pipe.....	6000	10000	20000	40000	70000	100000	150000
Capacity, Pounds of Water per Hour..	1250	2000	4000	6000	15000	24000	32000
Capacity, Gallons per Hour.....	150	240	480	720	1800	2880	3840
Price, with Check Valves.....each	100.00	150.00	200.00	300.00	400.00	500.00	750.00

Gravity Return, for Pressure up to 250 Pounds--Capacities same as above.

Size	205	206	207	208	209	210	211
Steam Inlet.....inches	1	1	1½	1½	1½	1½	1½
Water Inlet and Outlet.....inches	1	1¼	1½	2	2½	3	4
Price, with Check Valves.....each	120.00	180.00	240.00	360.00	480.00	600.00	900.00

Separating or Tank, for Pressure up to 80 Pounds.

Size	50	51	52	53	54	55	56	57	58	59
Pipe Connections.. ... inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Capacity, Lineal feet, 1 inch Pipe	1800	3500	7500	15000	25000	32000	40000	60000	90000	120000
Capacity, Pounds of Water per Hour	300	500	1000	2000	3333	4166	5000	6000	7500	10000
Capacity, Gallons per Hour.....	36	60	120	240	400	500	600	720	900	1200
Price.....each	15.00	25.00	35.00	55.00	85.00	115.00	150.00	200.00	300.00	425.00

Capacities are based on 50 pounds pressure.

Separating or Tank, for Pressure up to 250 Pounds.

Size	75	76	77	78	79	80	81	82
Pipe Connections.....inches	⅜	½	¾	1	1¼	1½	2	2½
Capacity, Lineal feet, 1 inch Pipe.....	6000	25000	50000	100000	150000	200000	423000	798000
Capacity, Pounds of Water per Hour.....	850	3700	8150	14575	23738	32900	70500	133000
Capacity, Gallons per Hour.....	102	444	978	1749	2849	3948	8460	15960
Price.....each	50.00	70.00	100.00	13.000	160.00	225.00	300.00	450.00

Capacities are based on 150 pounds pressure.

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STEAM TRAPS.

RELIANCE.

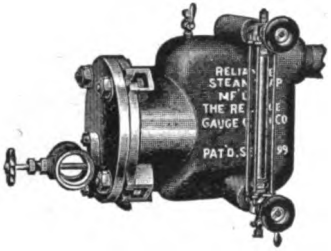

FIG. 925.

WRIGHT.

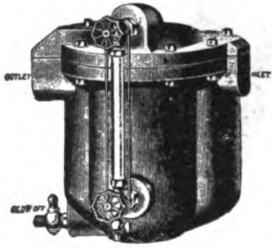

FIG. 926.

Reliance Balanced.

Size	1	2	3	4	5	6
Pipe Connections.....inches	½	¾	1	1¼	1½	2
Capacity, Lineal feet 1 inch Pipe.....	1000	3000	4500	7500	11000	16000
Capacity, Square feet .....Radiation	300	1000	1500	2500	3600	5300
Discharge per minute.....pounds	4½	7½	10	25	40	60
Price.....each	20.50	22.50	28.00	35.00	50.00	70.00

Wright Emergency.

Size	1	2	3	4	5	6	7	8
Pipe Connections.....inches	½	¾	1	1¼	1½	2	2½	3
Capacity, Lineal feet 1 in. Pipe.	2700	4000	6750	13500	18000	27000	45000	63000
Capacity, Square feet Radiation	900	1350	2250	4500	6000	9000	15000	21000
Maximum Discharge per hour.....gallons	75	110	180	300	480	720	1200	1680
Price.....each	20.50	22.50	28.00	35.00	50.00	70.00	100.00	130.00

The actual capacity of the Wright Trap is double the capacity indicated, in Square and Lineal feet, fifty per cent being allowed for emergencies.

JENKINS BRO'S. AUTOMATIC DIAMOND TRAP.

Opens when there is Water. **Closes when there is Steam.**

ADAPTED FOR HEATERS IN RUBBER FACTORIES, CAR HEATING, ETC.

FIG. 927.

Pipe Connection.....inches	¾
Capacity, Lineal feet, 1 inch Pipe.....	500 to 1000
Price .....each	4.00

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STEAM TRAPS.

McDANIEL SPECIAL.

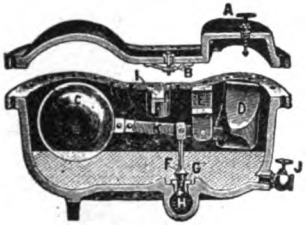

FIG. 928.

CHAPMAN.

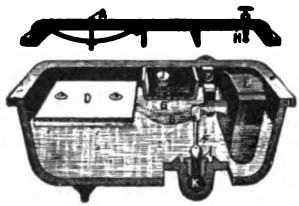

FIG 929.

Reliable, McDaniel's Standard and Extra Heavy.

Size	00	0	1	2	3	4	5
Pipe Connections..... inches	½	¾	1	1¼	1½	2	2½
Capacity, Lineal feet, 1 inch Pipe.....	450	1000	3500	7000	14000	20000	25000
Capacity, Square feet, Radiation.....	150	333	1166	2333	4666	6666	8333
Price, Reliable.....each	8.00	12.00	.....	.....	.....	.....	.....
Price, McDaniel.....each	.....	.....	30.00	40.00	65.00	75.00	100.00
Price, McDaniel, Extra Heavy...each	.....	24.00	40.00	55.00	80.00	90.00	100.00

Extra Heavy Traps for Pressure up to 150 pounds.

Chapman Standard and Extra Heavy.

Size.....	1	2	3	4
Pipe Connections.....inches	1	1¼	1½	2
Capacity, Lineal feet, 1 inch Pipe.....	1500	3000	7000	10000
Capacity, Square feet, Radiation.....	500	1000	2333	3333
Price, Standard.....each	25.00	35.00	60.00	70.00
Price, Extra Heavy.....each	.....	50.00	75.00	90.00

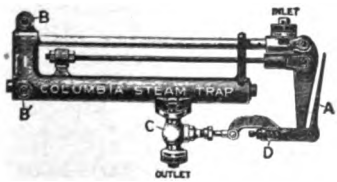

FIG. 930.

COLUMBIA EXPANSION TRAP.

For Pressure up to 150 Pounds.

Size.....	0	1	2	3	4	5	6
Pipe Connections.....inches	½	½	¾	1	1¼	1½	2
Capacity, Lineal feet, 1 inch Pipe.....	4000	6500	8000	16000	20000	30000	50000
Price.....each	16.00	24.00	32.00	40.00	50.00	60.00	90.00

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STEAM TRAPS.

CRANE.

FIG. 931.

NASON.

FIG. 932.

Crane.

Size	12	15	18
Pipe Connection, Inlet.....inches	1	1¼	1½
Pipe Connection, Outlet.....inches	¾	1	1¼
Capacity, Lineal feet 1 inch Pipe	1500	3500	5000
Price.....each	23.00	36.00	54.00

For Pressure up to 150 Pounds.

Nason and Nason Sidelug Traps.

Size	1	2	3	4	5
Pipe Connections.....inches	½	¾	1	1¼	1½
Capacity, Lineal feet 1 inch Pipe	1050	2700	4200	6000	10500
Capacity, Square feet Radiation	350	900	1400	2000	3500
Maximum discharge per minute.....pounds	2	5	8	12	20
Price, Nason.....each	16.00	20.00	27.50	42.50	70.00
Price, Sidelug.....each	16.85	21.30	29.25	45.50	74.75

Nason Traps are for Pressure up to 70 Pounds.

Nason Sidelug Traps are for Pressure up to 150 Pounds.

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STRAINERS.

For Steam Traps.

KIELEY STRAINER CONNECTION.

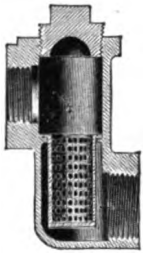

FIG. 933.

WATSON STRAINER CONNECTION.

FIG. 934.

Kieley and Watson Strainers.

Size .....inches	¾	1	1¼	1½	2	2½	3	4	5	6
Price, Kieley..... each	2.00	2.25	2.50	3.50	4.50	6.00	7.50	.....	....	.....
Price, Watson .....each	1.50	2.00	2.50	3.00	3.50	4.00	5.00	6.00	8.00	10.00

BUNDY STRAINER AND FLANGE UNION COMBINED

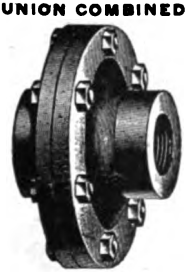

FIG. 935.

BUNDY DIRT SEPARATOR.

FIG. 936.

Size .....inches	½	¾	1	1¼	1½	2	2½	3	3½	4
Price, Bundy Strainer.....each	.....	.....	4.00	4.00	.....	4.00	6.00	6.00	6.00	6.00
Price, Bundy Dirt Separator.....each	5.00	5.00	5.00	7.00	7.00	7.00	.....	.....	.....	.....

Seamless Copper Ball Floats.

WILL NOT COLLAPSE UNDER 300 POUNDS PRESSURE.

Size .....inches	4	4½	5	5½	6	7	8
Weight .....each	12 oz.	13 oz.	1¼ lb.	1½ lb.	2¼ lb.	3½ lb.	4½ lb.
Price.....per dozen	23.00	23.00	27.00	27.00	34.00	49.00	64.00

Size .....inches	9	10	11	12½	15	16	.....
Weight .....each	5½ lb.	9½ lb.	12½ lb.	18½ lb.	33 lb.	39 lb.	.....
Price.....per dozen	79.00	105.00	128.00	174.00	342.00	375.00	.....

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KIELEY PRESSURE REGULATORS.

HIGH PRESSURE.

FIG. 937.

LOW PRESSURE.

FIG. 938.

MARINE.

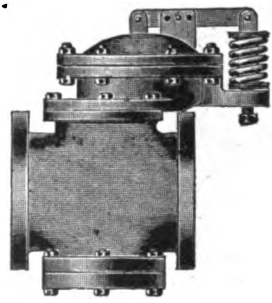

FIG. 939.

High, Low, Extra Heavy and Marine Pressure Regulators.

Size.....inches	¾	1	1¼	1½	2	2½	3	3½
Price.....each	20.00	22.00	28.00	35.00	44.00	57.00	72.00	85.00
Face to Face, Low Pressure....inches	4½	4½	4¾	4¾	6	7½	8½	9½
Face to Face, All Others....inches	4½	4½	4½	4½	6½	7½	8½	9½

Size.....inches	4	5	6	7	8	9	10	12
Price.....each	100.00	135.00	180.00	225.00	275.00	350.00	350.00	470.00
Face to Face, Low Pressure....inches	10⅜	11¾	12¾	13¼	14½	16½	16½	18½
Face to Face, All Others....inches	10½	11¾	12¾	13¾	14½	16½	16½	18½

"SPECIAL 1900."

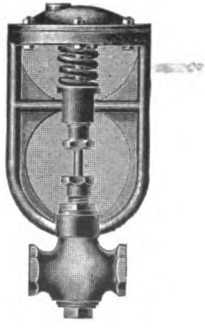

FIG. 940.

"SPECIAL 98" VACUUM PRESSURE.

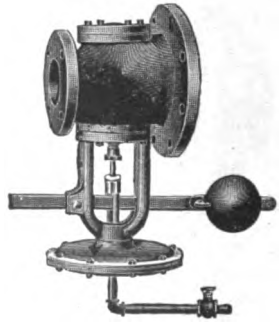

FIG. 941.

"Special 1900" Pressure Regulators, Screwed.

Size.....inches	½	¾	1	1¼	1½	2
Price.....each	22.00	24.00	26.00	30.00	35.00	44.00
End to End.....inches	2¾	3½	3¾	4⅜	4¾	5¾

"Special 98" Vacuum Pressure Regulators.

Size.....inches	1x2	1¼x2½	1½x3	2x4	2½x5	3x6	4x8	5x10	6x12	8x14
Price.....each	33.00	42.50	53.50	72.00	96.00	126.00	187.50	242.00	325.00	400.00
Face to Face..inches	6	6½	6½	6½	7¾	8½	11	12	13	14¾

Sizes 1x2 to 2x4 inches inclusive, made with small end screwed, all larger have flanged ends. Template for drilling and diameter of Flanges, see page 95.

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FOSTER PRESSURE REGULATORS.

CLASS W.

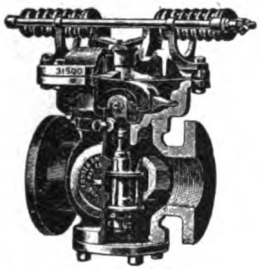

FIG. 942.

CLASS Q.

FIG. 943.

Class W, Screwed.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½
Price.....each	18.00	20.00	22.00	28.00	35.00	44.00	57.00		
End to End.....inches	.....	4½	5⅜	5½	6	7	9		

Size.....inches	3	3½	4	4½	5	6	.....
Price.....each	72.00	90.00	100.00	120.00	135.00	180.00	.....
End to End.....inches	10	11	12	14	15	17	.....

Class W, Flanged.

Size.....inches	¾	1	1¼	1½	2	2½	3	3½	4	4½
Price.....each	22.00	24.00	30.00	37.00	46.00	60.00	75.00	95.00	105.00	125.00
Diam. of Flanges..inches	3¾	4¼	5	5⅞	6	7	7½	8½	9	9½
Face to Face..inches	4½	5¾	5½	6	7	9	10	11	12	14

Size.....inches	5	6	7	8	10	12	14	16	18	20
Price.....each	140.00	185.00	220.00	260.00	350.00	450.00	575.00	700.00	875.00	1150.00
Diam. of Flanges..inches	10	11	12½	13½	16	19	21½	23½	25	27½
Face to Face..inches	15	17	18¼	20¾	23½	27¼	31	35	37½	48½

Class Q, Screwed and Flanged.

Size.....inches	¾	1	1¼	1½	2	2½	3
Price, Screwed.....each	18.50	20.00	24.00	28.00	35.00	40.00	48.00
Price, Flanged.....each	.....	.....	.....	.....	38.00	43.00	52.00

Size.....inches	3½	4	5	6	8	10	12
Price, Screwed.....each	55.00	70.00	85.00	120.00	.....	.....	.....
Price, Flanged.....each	60.00	75.00	90.00	125.00	200.00	300.00	350.00

Strainers for Class Q, Regulators.

Size.....inches	1	1¼	1½	2	2½	3	3½
Price, Screwed.....each	3.00	4.00	4.00	5.00	6.00	6.00	9.00
Price, Flanged.....each	.....	.....	.....	6.50	7.50	7.50	10.00

Size.....inches	4	5	6	8	10	12	.....
Price, Screwed.....each	9.00	10.00	12.00	.....	.....	.....	.....
Price, Flanged.....each	10.00	11.50	13.50	17.00	20.00	.....	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

DAVIS PRESSURE REGULATORS.

No. 1.

FIG. 944.

No. 2.

FIG. 945.

Numbers 1 and 2, Screwed.

Size.....inches	½	¾	1	1¼	1½	2	2½	3	3½	4	5	6
Price, No. 1....each	20.00	20.00	22.00	24.00	25.00	30.00	35.00	40.00	50.00	60.00	75.00	100.00
Price, No. 2....each	.....	25.00	27.00	29.00	30.00	36.00	42.00	48.00	58.00	70.00	90.00	120.00
End to End..inches	3¼	3¼	4	5	7	7½	7½	9½	9½	10½	11½	12½

Numbers 1 and 2, Flanged.

Size.....inches	2	2½	3	4	5	6	7	8	10	12	14
Price, No. 1....each	30.00	35.00	40.00	60.00	75.00	100.00	135.00	175.00	275.00	400.00	500.00
Price, No. 2....each	36.00	42.00	48.00	70.00	90.00	120.00	160.00	200.00	300.00	435.00	600.00
Diam. of Flanges..inches	6	7	7½	9	10	11	12½	13½	16	19	21
Face to Face.. ...inches	7½	7½	9½	10½	11½	12½	13½	16	20	21	24½

No. 3.

FIG. 946.

P. AND W.

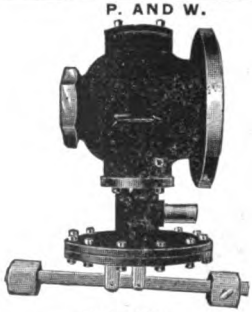

FIG. 947.

Number 3.

Size.....inches	1½x3	2x4	2½x5	3x6	4x8	5x10	6x12	8x14
Price..... each	40.00	50.00	65.00	85.00	135.00	195.00	280.00	360.00
Face to Face.....inches	Screwed 7½	Screwed 8	Scr'd & Fl'g'd 9	Scr'd & Fl'g'd 10	12½	15	17½	20½

P. and W.

Size.....inches	1	1¼	1½	2	2½	3	3½
Price.....each	22.00	29.00	34.00	40.00	50.00	60.00	70.00
Size.....inches	2x4		2½x5	3x6		4x8	
Price .....each	60.00		70.00	100.00		160.00	

Size.....inches	4	5	6	7	8	10	.....
Price.....each	100.00	135.00	175.00	220.00	285.00	360.00	.....
Size.....inches	5x10		6x12		8x14		.....
Price.....each	200.00		300.00		400.00		.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

MASON REDUCING VALVES.

REDUCING VALVE.

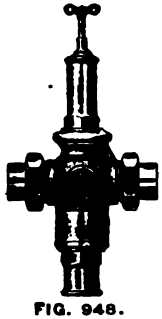

FIG. 948.

REDUCING VALVE FOR VACUUM SYSTEM.

FIG. 949.

Reducing Valves, Screwed.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price	18.00	18.00	22.00	28.00	35.00	44.00	57.00	72.00		
End to End	5¾	5¾	7	8	9	11¼	8¾	10¼		

Reducing Valves, Flanged.

Size.....inches	2	2½	3	3½	4	5	6	8	10
Price.....each	44.00	57.00	72.00	85.00	100.00	135.00	180.00	250.00	350.00
Diameter of Flanges...inches	6	7	8	9½	10	11	12	14	18
Face to Face....inches	7	8¾	10¼	12	14	15⅛	17⅛	21	25¾

Reducing Valves for Vacuum System.

Size.....inches	1½x3	2x4	3x6	4x8	5x10
Price.....each	44.00	57.00	85.00	135.00	189.00

BALANCED VALVE.

FIG. 950.

FLOAT VALVE.

FIG. 951.

Balanced Valves.

Size...inches	½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8
Price...each	5.50	6.50	8.00	9.50	11.00	14.00	19.00	25.00	30.00	35.00	45.00	55.00	75.00

Sizes ½ to 1½ inch Brass; Other sizes Iron Body, Brass Trimmings.

Float Valves.

Size.....inches	¾	1	1¼	1½	2	2½	3	4
Price.....each	6.50	8.00	9.50	12.00	20.00	40.00	60.00	88.00

Prices of Float Valve includes Float.

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THE M. H. GARRISON SUPPLY CO. CLEVELAND

PUMP GOVERNORS.

FISHER.

FIG. 952.

COMPETITION.

FIG. 953.

Fisher Pump Governors, Screwed.

Size....inches	½	¾	1	1¼	1½	2	2½	3
Price.... .each	25.00	27.50	30.00	35.00	42.50	50.00	58.00	70.00

Fisher Pump Governors, Flanged.

Size.....inches	2	2½	3	3½	4	5	6
Price.....each	50.00	60.00	75.00	87.50	100.00	125.00	150.00

Competition Pump Governors, Screwed and Flanged.

Size..... inches	1	1¼	1½	2	2½	3	4	5	6	8	10
Price, Screwed, each	30.00	35.00	42.50	50.00	58.00	.....	.....	.....	.....	.....	.....
Price, Flanged, each	.....	.....	.....	.....	60.00	75.00	100.00	125.00	150.00	200.00	250.00

KIELEY.

FIG. 954.

MUELLER CONDENSATION RECEIVER AND AUTOMATIC PUMP REGULATOR.

FIG. 955.

Number.....	0	1	2	3	4	4
Size, Steam Pipe.....inches	½	¾	1	1¼	1½	1½
Size Suction, Kieley Governors..inches	.....	2	2½	3	.....	4
Size, Inlet and Outlet Mueller Regulators.....inches	1½	2	2½	3	4	.....
Capacity, Lineal feet 1 inch Pipe	5000	10000	20000	30000	40000	50000
Price, Kieley Governors.....each	.....	200.00	300.00	400.00	.....	500.00
Price, Mueller Regulators.....each	70.00	100.00	130.00	150.00	200.00	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 345

CONDENSATION PUMP WITH MUELLER AUTOMATIC RECEIVER AND PUMP REGULATOR.

Style B.

Receiver Elevated Above Pump.

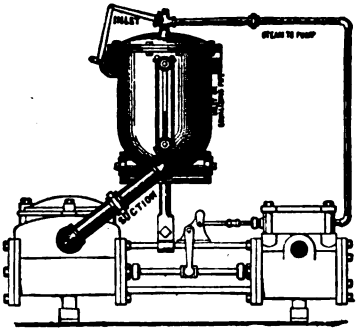

FIG. 956.

Style D.

Receiver Attached to Receiving Tank, Establishing a Fixed Water Line.

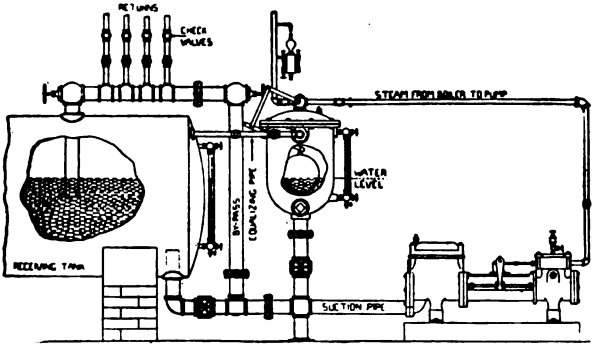

FIG. 957.

Number.	Capacity, Square Feet Radiation.	Size of Steam Valve, Inches.	Size, Inlet and Outlet Connections, Inches.	Size, Duplex Steam Pump.	Price, Apparatus Complete, with Pump.	Additional Net Cost for Brass Fitted Pump.
00	5000	½	1½	3 x2 x 3	150.00	3.50
0	7000	½	1½	4½x2¾x 4	190.00	6.50
1	10000	¾	2	5¼x3½x 5	260.00	8.50
2	20000	1	2½	6 x4 x 6	340.00	11.00
3	30000	1½	3	7½x4½x 6	425.00	16.50
4	40000	1½	4	7½x4½x10	525.00	28.00

We advise the use of brass fitted, piston packed type of duplex steam pumps.

The above prices are for Pumps and Receivers ONLY, no pipe connections.

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STANDARD IRON BODY BACK PRESSURE VALVES.

Brass Mounted, Screwed and Flanged.

BACK PRESSURE VALVE.

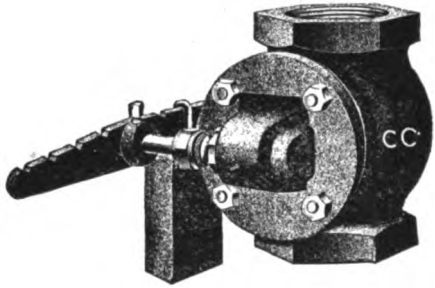

FIG. 958.

Back Pressure Valves, Screwed, No. 384.

Size .....inches	2	2½	3	3½	4	4½
Price .....each	11.00	13.00	15.00	19.00	22.50	28.50
End to End.....inches	5¾	6⅝	7½	8¼	9⅜	10¼

Size .....inches	5	6	7	8	10	12
Price.....each	33.50	43.00	70.00	85.00	120.00	180.00
End to End.....inches	11¼	12½	14	16	18¾	22

Back Pressure Valves, Flanged, No. 385.

Size .....inches	3	3½	4	4½	5
Price .....each	17.50	22.00	26.00	32.00	37.00
Diameter of Flanges.....inches	7½	8½	9	9½	10
Face to Face.....inches	9½	10½	11	12	13

Size .....inches	6	7	8	10	12
Price .....each	47.00	75.00	90.00	130.00	200.00
Diameter of Flanges..... inches	11	12½	13½	16	19
Face to Face.....inches	14	16	17	20	24

These Valves should be one size larger than exhaust pipe to favor wearing of Valves and insure free exhaust.

They are weighted for 2 pounds back pressure; when Valves are wanted for a higher pressure, they will be made to order at a special price.

Template for drilling, see page 95.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

DAVIS IRON BODY, NOISELESS BACK PRESSURE VALVES.

Brass Mounted, Screwed and Flanged.

For Non-Condensing Engines Only.

SCREWED.

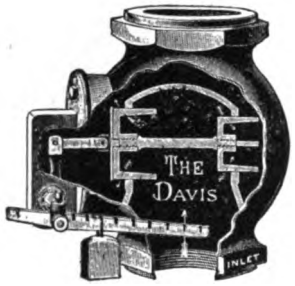

FIG. 959.

FLANGED.

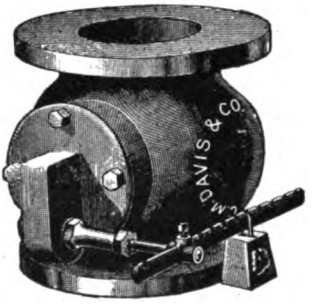

FIG. 960.

Back Pressure Valves, Screwed.

Size.....inches	2	2½	3	3½	4	4½	5	6	7
Price.....each	14.00	16.00	18.00	22.00	25.00	30.00	40.00	60.00	80.00
End to End.....inches	7½	7½	8½	9	10	10¾	11½	13	14½

Back Pressure Valves, Flanged.

Size.....inches	3	3½	4	4½	5	6	7	8	9
Price.....each	18.00	22.00	25.00	30.00	40.00	60.00	80.00	100.00	120.00
Diam. of Flanges...inches	7½	8½	9	9½	10	11	12½	13½	15
Face to Face...inches	8½	9	10	10¾	11½	13	14½	16½	18

Size.....inches	10	12	14	15	16	18	20	24	.....
Price.....each	145.00	220.00	345.00	345.00	465.00	600.00	750.00	1050.00	.....
Diam. of Flanges...inches	16	19	21	22½	23½	25	27½	32	.....
Face to Face...inches	19	21	23	23	27	31	35	40	.....

VACUUM SYSTEM BACK PRESSURE VALVES same price as above.

Illustrations Showing Positions in which Davis Back Pressure Valves can be used.

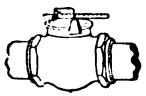

FIG. 961.

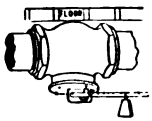

FIG. 962.

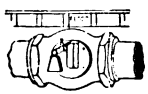

FIG. 963.

FIG. 964.

These Back Pressure Valves are weighted for a back pressure from zero to twenty-five pounds.

When valves are wanted for a higher pressure it should be so stated.

When Davis valves are to be used on systems at atmosphere or below, the discs are bevel seated and especially ground. The valve is also provided with counter balance lever for closer adjustment in modern high class steam heating systems.

Template for drilling, see page 95.

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KIELEY IRON BODY NOISELESS BACK PRESSURE VALVES.

HORIZONTAL; SINGLE SEATED.

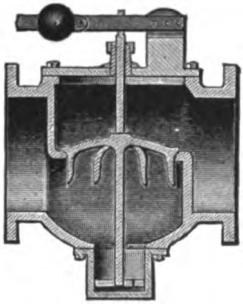

FIG. 965.

SEMI-BALANCED; FOR VERTICAL OR HORIZONTAL POSITIONS.

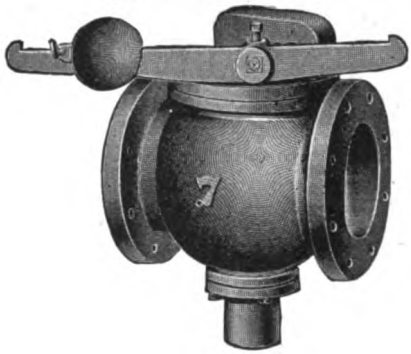

FIG. 966.

Horizontal Single Seated and Semi-Balanced Back Pressure Valves.

Size.....inches	2	2½	3	3½	4	4½	5
Price.....each	20.00	24.00	30.00	35.00	40.00	45.00	55.00
Diameter of Flanges.....inches	6	7	7½	8½	9	9½	10
Face to Face.....inches	7⅛	7⅛	8¾	9⅛	10¾	11½	12½

Size.....inches	6	7	8	9	10	12	14
Price.....each	75.00	100.00	130.00	200.00	200.00	275.00	345.00
Diameter of Flanges.....inches	11	12½	13½	15	16	19	21
Face to Face.....inches	13¾	15	15⅛	19⅛	19⅛	22	22½

2 to 4 inch, made with Screwed Ends.

Exhaust or Atmospheric Relief Valves, not Illustrated.

Size.....inches	4	5	6	7	8	9
Price.....each	40.00	55.00	75.00	100.00	130.00	200.00
Diameter of Flanges.....inches	9	10	11	12½	13½	15
Face to Face.....inches	10	11½	12½	13½	15	17

Size.....inches	10	12	14	16	18	20
Price.....each	200.00	275.00	345.00	465.00	600.00	750.00
Diameter of Flanges.....inches	16	19	21	23½	25	27½
Face to Face.....inches	17	19	21	23	25	27

Template for drilling, see page 95.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 349

DAVIS IRON BODY ATMOSPHERIC RELIEF VALVES.

Flanged.

For Condensing Engines Only.

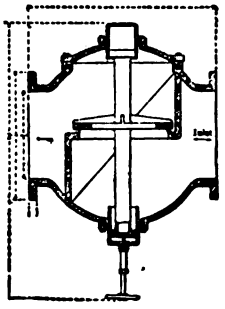

FIG. 967

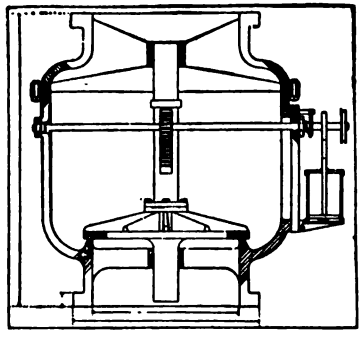

FIG. 968.

Size .....inches	6	8	10	12	14	15	16
Price, Horizontal or Vertical, each	60.00	100.00	270.00	335.00	415.00	415.00	500.00
Face to Face, Horizontal...inches	20	20	24	29	32	32	36
Diameter of Flanges..... inches	11	13½	16	19	21	22½	23½
Height from Center of Pipe to Top of Valve, Horizontal Type... .....inches	12½	12½	16	19	22	22	23

Size.....inches	18	20	22	24	26	28	30
Price, Horizontal or Vertical, each	584.00	670.00	917.00	1170.00	1420.00	1600.00	2000.00
Face to Face, Horizontal...inches	40	43	47	51½	57	64	70
Diameter of Flanges.....inches	25	27½	29½	32	34¼	36½	38¾
Height from Center of Pipe to Top of Valve, Horizontal Type.....inches	24	25	28	30	33	36	40

ALWAYS STATE WHETHER HORIZONTAL OR VERTICAL VALVES ARE WANTED.

The primary purpose of this valve is to provide a quick relief to the atmosphere of pressure accumulating in the condenser. It comes into play upon starting the engine and before the condenser begins to operate, or when for any cause the vacuum is suddenly lost in the condenser, and to relieve any pressure that would be caused from the exhaust, an open air relief must be provided. Upon pressure accumulating under the discs it raises quickly. The plungers at each extremity of the axis act as cushions, preventing any hammering or pounding and abrasion of the seat. Upon lowering, the plunger has to displace the water in the lower dash pot, and thus a gradual closing is accomplished. Steam metal bushing and babbit metal form the two ground seats, and insure a perfectly tight closure of the valve. This valve is provided with a hand wheel so that the valve may be kept open permanently at any time. Full area of the pipe is allowed through the port, and the globe shape of the body eliminates any choking of the exhaust.

Vertical Valves.

The vertical type is practically the same, except that it is provided with a dash pot outside to prevent abrasion and hammering of seats. The disc is guided at the top and bottom by spiders, thus assuring the seating each time in the same place.

Dimensions of Vertical Valves will be furnished upon application.

These valves are made flanged ends only.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

AUSTIN CAST IRON STEAM SEPARATORS.

For Live and Exhaust Steam.

HORIZONTAL.

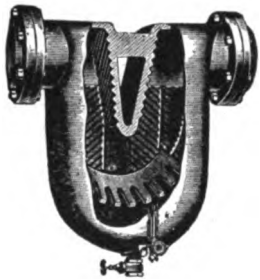

FIG. 969
B

VERTICAL.

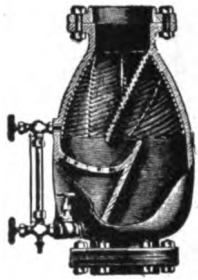

FIG. 970.
A

Horizontal Separators.

Size.....inches	1½	2	2½	3	3½	4	4½
Price.....each	30.00	40.00	45.00	50.00	60.00	70.00	75.00
Diameter of Flanges.....inches	Screwed	Screwed	7	7½	8	9	9½
Face to Face.....inches	9	9	13	15	16	18	19
Bottom to Center of Connections.....inches	9	9	12	13	14	15	17

Size.....inches	5	6	7	8	10	12	.....
Price.....each	80.00	110.00	125.00	160.00	220.00	250.00	.....
Diameter of Flanges.....inches	10	11	12½	13½	16	20	.....
Face to Face.....inches	20	24	27	30	31	36	.....
Bottom to Center of Connections.....inches	19	22	25	29	36	40	.....

Vertical Separators.

Size.....inches	1½	2	2½	3	3½	4	4½
Price.....each	30.00	40.00	45.00	50.00	60.00	70.00	75.00
Diameter of Flanges.. ....inches	7	7	7	7½	9	9	10
Face to Face.....inches	12½	12½	12½	15	18	18	22
Diameter of Body.....inches	8	8	8	9	11	11	13

Size.....inches	5	6	7	8	10	12	.....
Price.....each	80.00	110.00	125.00	160.00	220.00	250.00	.....
Diameter of Flanges.....inches	10	11	12½	13½	16	20	.....
Face to Face.....inches	22	25	28	31	36	38½	.....
Diameter of Body.....inches	13	15	17	19	23	25½	.....

Above Prices include Connecting Flanges, Water Gauge, Nipple and Gate Valve.

Template for drilling, see page 95.

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THE W. M. PATTISON SUPPLY CO. 351 CLEVELAND

AUSTIN STEEL SEPARATORS.

For Live and Exhaust Steam.

HORIZONTAL.

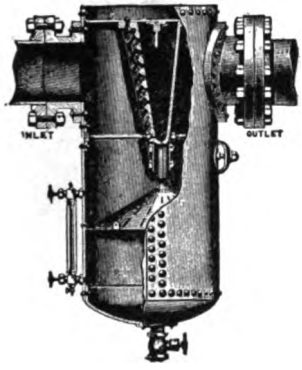

FIG. 971.

VERTICAL.

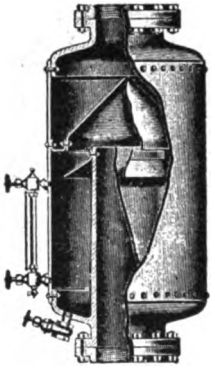

FIG. 972.

D **Horizontal Separators.** C

Size .....inches	12	14	16	18	20
Price .....each	250.00	300.00	350.00	425.00	500.00
Diameter of Flanges.....inches	20	23	25	27½	30
Face to Face.....inches	35	37	39	41	43
Bottom to Center of Connections.....inches	38	44	47	50	56
Height Over All.....inches	48	58	62	66	72
Diameter of Body.....inches	24	26	28	30	32

Vertical Separators.

Size .....inches	12	14	16	18	20
Price .....each	250.00	300.00	350.00	425.00	500.00
Diameter of Flanges .....inches	20	23	25	27½	30
Face to Face.....inches	56	62	68	74	80
Diameter of Body.....inches	30	34	38	42	44

Template for drilling, see page 95.

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AUSTIN RECEIVER SEPARATORS.

HORIZONTAL CAST IRON.

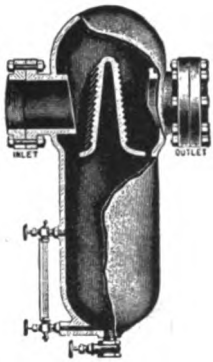

FIG. 973.

E

HORIZONTAL STEEL, WITH CAST HEAD.

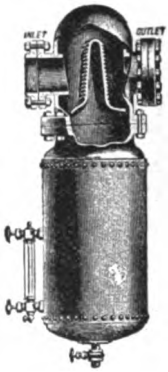

FIG. 974.

L

Horizontal Cast Iron Receiver Separators.

Size.....inches	2	2½	3	3½	4	4½	5
Diameter of Flanges.....inches	Screwed	7	7½	8½	9	9½	10
Face to Face.....inches	9	11	12½	13⅝	14¾	16½	19
Bottom to Center of Connections.inches	10	12	13	15	17	20	23
Top to Center of Connections.....inches	5	6	6½	7½	9	10	11

Size.....inches	6	7	8	9	10	12	14
Diameter of Flanges.....inches	11	12½	13½	16	16	20	23
Face to Face.....inches	21	22¾	24	27½	30	34	39
Bottom to Center of Connections.inches	26	29	32	35	38	41	44
Top to Center of Connections.....inches	12	13¾	16	17¾	20	23	26

Horizontal Steel Receiver Separators, with Cast Head

Size.....inches	3	4	5	6	7	8	9
Diameter of Flanges .....inches	8¼	10	11	12½	14	15	16
Face to Face.....inches	12¼	14¾	19	21	22¾	24	27½
Bottom to Center of Connections inches	36	40	45	50	56	64	72
Top to Center of Connections.....inches	6½	9	11	12	13¾	16	17¾

Size.....inches	10	12	14	16	18	20	.....
Diameter of Flanges.....inches	17½	20	22½	25	27	29½	.....
Face to Face.....inches	30	34	39	41½	43	45	.....
Bottom to Center of Connections.inches	80	90	102	112	120	130	.....
Top to Center of Connections.....inches	20	23	26	29	32	35	.....

PRICES ON APPLICATION.

Template for drilling, see page 95.

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KIELEY STEAM SEPARATORS AND GREASE EXTRACTORS.

"NEW CENTURY" STEAM SEPARATOR.

FIG. 975.

MULTI-TUBULAR OIL AND GREASE EXTRACTOR.

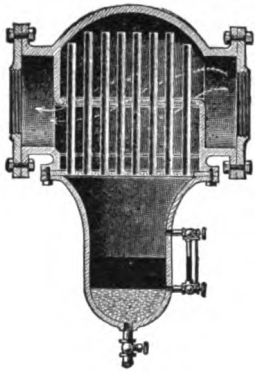

FIG. 976.

"New Century" Steam Separators.

Size.....inches	2	2½	3	3½	4	4½	5
Price.....each	30.00	35.00	45.00	55.00	64.00	75.00	83.00
Diameter of Flanges.....inches	6	7	7½	8½	9	9½	10
Face to Face.....inches	11¾	11¾	14¼	14¼	16⅜	16⅜	17½

Size.....inches	6	7	8	9	10	12	.....
Price.....each	104.00	120.00	145.00	165.00	200.00	250.00	.....
Diameter of Flanges.....inches	11	12½	13½	15	16	19	.....
Face to Face.....inches	18	18	21	23½	23½	25	.....

Multi-Tubular Oil and Grease Extractors.

Size.....inches	2	2½	3	3½	4	4½	5
Price.....each	30.00	35.00	45.00	55.00	64.00	75.00	83.00
Diameter of Flanges.....inches	6	7	7½	8½	9	9½	10
Face to Face.....inches	7	7¼	8¾	9¼	10½	11¾	12¼

Size.....inches	6	7	8	9	10	12	.....
Price.....each	104.00	120.00	145.00	165.00	200.00	250.00	.....
Diameter of Flanges.....inches	11	12½	13½	15	16	19	.....
Face to Face.....inches	14	15	16¼	19	19	22	.....

Template for drilling, see page 95.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

EXHAUST PIPE HEADS.

BURT

FIG. 977.

CHAMPION.

FIG. 978.

Burt Exhaust Pipe Heads.

Size of Pipe...inches	1 or 1½	2 or 2½	3 or 3½	4 or 4½	5	6	7	8	9	10
Price.....each	8.00	10.00	12.00	16.00	20.00	24.00	30.00	36.00	42.00	50.00
Size of Drip...inches	¾	1	1	1	1¼	1¼	1¼	1½	1½	2
Height....inches	16	18	20	27	29	31	36	39	43	46
Diameter.inches	10	12	14	16	18	20	22	24	26	30

Size of Pipe...inches	11	12	13	14	15	16	17	18	19	20
Price.....each	50.00	60.00	70.00	80.00	94.00	100.00	108.00	120.00	132.00	144.00
Size of Drip...inches	2	2	2	2½	2½	2½	3	3	3½	3½
Height....inches	46	48	51	56	59	62	69	76	79	82
Diameter.inches	30	32	34	36	39	42	45	48	50	52

Champion Exhaust Pipe Heads.

Size of Pipe...inches	1 or 1½	2 or 2½	3 or 3½	4 or 4½	5	6	7	8	9
Price.....each	20.00	25.00	30.00	40.00	50.00	60.00	75.00	90.00	105.00

Size of Pipe...inches	10	12	13	14	15	16	17	18	.....
Price.....each	125.00	150.00	175.00	200.00	235.00	250.00	270.00	300.00	.....

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EXHAUST PIPE HEADS.

LYMAN.

FIG. 979.

CRAWFORD

FIG. 960.

Lyman Exhaust Pipe Heads.

Size of Pipe.....inches	1 or 1½	2 or 2½	3 or 3½	4 or 4½	5	6	7	8
Price.....each	20.00	25.00	30.00	40.00	50.00	60.00	75.00	90.00
Size of Drip.....inches	1¼	1¼	1½	1½	2	2	2	2½
First Section Reduced to...inches	¾	¾ or 1	¾ or 1	1	1 or 1¼	1 or 1¼	1 or 1¼	1¼ or 1½

Size of Pipe.....inches	9	10	12	14	15	16	18	.....
Price.....each	105.00	125.00	150.00	200.00	235.00	250.00	300.00	.....
Size of Drip.....inches	2½	2½	3	3	3½	3½	4	.....
First Section Reduced to...inches	1¼ or 1½	1½ or 2	1½ or 2	2 or 2½	2½ or 3	2½ or 3	3 or 3½	.....

9 inch and smaller are screwed, unless otherwise ordered; 10 inch and larger are flanged.

Crawford Exhaust Pipe Heads.

Size.....inches	2	2½	3	3½	4	4½	5
Price.....each	14.00	16.00	18.00	21.00	24.00	27.00	30.00

Size.....inches	6	7	8	9	10	12	.....
Price.....each	36.00	43.00	50.00	65.00	80.00	100.00	.....

Cleveland Exhaust Pipe Heads.

Size.....inches	2	2½	3	3½	4	4½	5
Price.....each	14.00	16.00	18.00	21.00	24.00	27.00	30.00

Size.....inches	6	7	8	9	10	12	.....
Price.....each	36.00	43.00	50.00	65.00	80.00	100.00	.....

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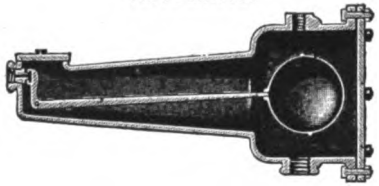
THE W. M. PATTISON SUPPLY CO. CLEVELAND 356

AUTOMATIC WATER FEEDERS.

For Boilers, Etc.

AUTOMATIC.



MUELLER AUTOMATIC.

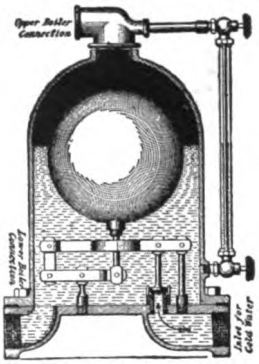


FIG. 981. **Automatic Water Feeders.** FIG. 982.

Price.....each		20.00

Mueller Automatic Water Feeders.

Number	1	2
Size, Inlet and Outlet Connections.....inches	¾	1
Price.....each	30.00	40.00

DAMPER REGULATORS.

LOW PRESSURE.

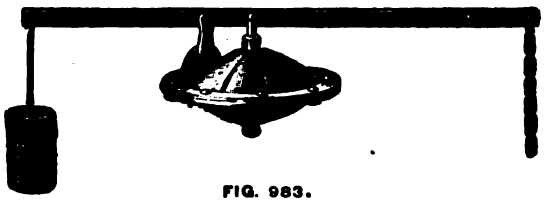


FIG. 983.

Price.....each	5.00

HIGH PRESSURE.

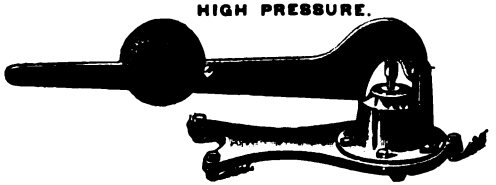


FIG. 984.

For Boilers.....horse power	5	20	30
Price.....each	10.00	15.00	25.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

DAMPER REGULATORS.

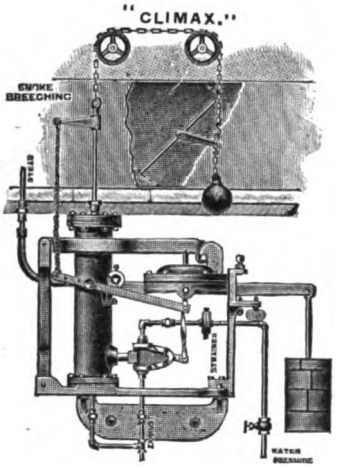

FIG. 985.

Price.....each		150.00

CURTIS.

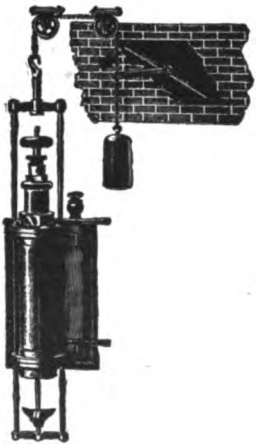

FIG. 986.

Number.....	1	2	3
For Boilers.....horse power	Up to 75	75 to 150	For Batteries
Price.....each	80.00	100.00	150.00

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DAMPER AND TEMPERATURE REGULATORS.

CURTIS DAMPER REGULATOR.

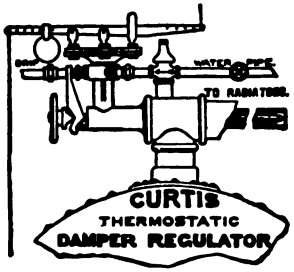

FIG. 987.

For Controlling the Temperature of Steam or Water in Low Pressure System.

Price	each	70.00

POWERS' TEMPERATURE REGULATORS.

STEAM REGULATOR.

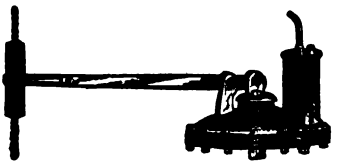

FIG. 988
No. 3.

HOT WATER REGULATOR.

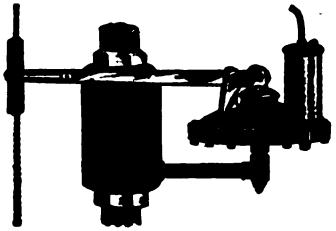

FIG. 989
No. 4.

	Limiting Device for Hot Water Tank Heater.	For Hot Air Furnace.	For Low Pressure Steam Heating.	For Hot Water Heating.	Double Lever Attachment Extra.
Number	1	2	3	4	.....
Price.....each	25.00	40.00	45.00	50.00	2.00

THERMOSTAT.

FIG. 990.

REGULATOR FOR CONTROLLING THE TEMPERATURE OF STEAM HEATED WATER SUPPLY.

FIG. 991.
No. 8.
Regulator for Steam Heated Water Supply.

Size.....inches	1	1¼	1½	2
Price ..... each	70.00	75.00	80.00	90.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 359

THERMO HOT WATER TEMPERATURE CONTROLLER.

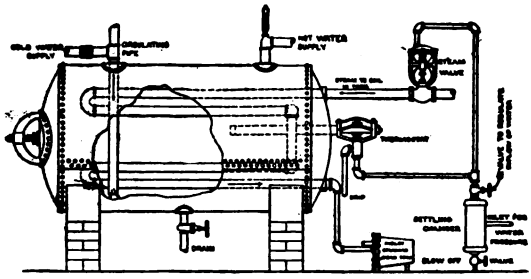

FIG. 992.

Price.....	150.00

The Temperature Controller is for service in connection with the hot water supply for hotels, apartment buildings, etc., where it is found essential that a uniform temperature of hot water supply be maintained at all times. All that is necessary to connect it, is a single line of $\frac{1}{8}$ inch pipe from the settling chamber (which is usually made out of two $\frac{1}{8}$ inch reducing couplings and about 2 feet of 2 inch pipe) to the steam and water valves, with a $\frac{1}{8}$ inch Water Controller Valve, same as shown in diagram and another line to carry off the occasional exhaust.

Kieley's System of Utilizing Waste Heat.

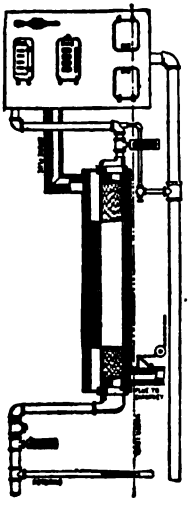

FIG. 993.

By installing this system one is enabled to heat a house or building better and much cheaper than is possible with the best methods now in use.

It is well known by heating and ventilating engineers that the gases passing out of boiler furnaces are much hotter than the steam they make; that the returns from a heating apparatus are three or four times cooler than the gases; that with a properly constructed heater a good portion of this difference in heat can be and is conveyed to the return water while passing through the heater, and that for every degree of heat added to the return water, just so much coal is saved.

The installing of this system consists of placing a heater in the flue between the boiler and the chimney, and passing the water from the radiators through the heater before it enters the boiler.

Prices on application

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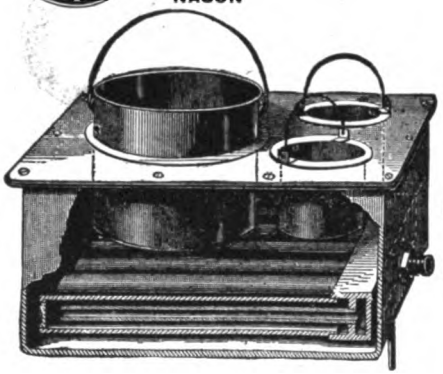
GLUE HEATERS AND POTS.

NASON



DART

FIG. 994. **Nason Steam Glue Heaters.** FIG. 995.

Number	1	2	3
Price, Heaters Only.....each	10.00	16.00	20.00
Size of Cover.....inches	12x17	17½x23	17½x30
Height.....inches	8	9½	9½
Size and Combinations of Pots for which covers can be furnished.	One 8 inch only One 9 inch only Two 5 inch only	Four 5 inch only Six 5 inch only Four 6 inch only One 12 inch only Two 9 inch only One 10 and Two 5 inch only One 10 and Two 6 inch only One 8 and Two 5 inch only One 8 and Two 6 inch only	Eight 5 inch only Two 12 inch only One 10 and Four 6 inch only One 12 and Four 5 inch only Two 10 and Two 5 inch only

Copper Pots for Nason Steam Glue Heaters.

Capacity.....quarts	1½	2½	4½	6	8	11	16
Price.....each	2.00	2.25	2.50	3.50	4.00	4.50	5.50
Diameter.....inches	5	6	7	8	9	10	12
Depth.....inches	5	5¼	7	6¾	7½	8	8

Galvanized Pots, 1½ quarts, 5 inches diameter, 4⅝ inches deep, each, 75 cents.

Dart Steam Glue Heater.

Size of Steam Box.....inches	8x15
Price Complete as shown with Copper Pots.....each	10.00
Height.....inches	7½
Capacity of Pots.....quarts	2

FIG. 996.

Galvanized Glue Pots with or without Jackets

Number.....	00	0	1	2	3	4	5	6
Price.....each	.60	.70	.75	.90	1.25	1.50	1.60	1.75
Capacity.....pints	1	1½	2	2½	3	3½	4	4½

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THE W. M. PATTISON SUPPLY CO. 361 CLEVELAND

STEAM KETTLES

CAST IRON, SEAMLESS JACKET.

FIG. 997

LARD KETTLE

FIG. 998.

Cast Iron, Seamless Jacket Steam Kettles.

Capacity.....gallons	5	10	20	30	40	50	65	80	100	125
Price, with Legs....each	10.50	19.00	30.00	39.00	52.00	65.00	76.00	85.00	105.00	127.00
Diameter, Inside...inches	16¼	16½	30	30¾	32	32¾	39¼	40⅛	41⅜	47⅜
Depth, Inside.....inches	8½	12	13	17¼	19½	22½	18½	23½	26	26½
Total Height.....inches	19¼	21½	21½	27	28	31⅜	30½	34	37½	38¾
Capacity.....gallons	150	175	200	250	300	350	400	500	.....	.....
Price, with Brackets.ea.	146.00	159.00	176.00	220.00	248.00	275.00	300.00	350.00	.....	.....
Diameter, Inside...inches	48	53½	54	60	62	64	68⅜	71	.....	.....
Depth, Inside.....inches	30¼	27¾	30¼	31	31½	39	38	42⅝	.....	.....
Top to Lugs.....inches	25¾	25½	22¾	24½	28	32½	31½	35	.....	.....

Kettles above 125 gallons are made with brackets.

Cast Iron, Full Jacket Steam Kettles.

Capacity..... gallons	10	15	20	25	30	40	50
Price.....each	45.00	50.00	65.00	78.00	90.00	105.00	117.00
Price, with Loose Cover.....each	50.00	55.00	72.00	86.00	100.00	120.00	134.00
Price, with Galvanized Cover, Brass Hinges and Handles.....each	56.00	64.00	78.00	84.00	109.00	126.00	140.00
Price, with Copper Cover, Brass Hinges and Handles.....each	65.00	71.00	90.00	106.00	120.00	140.00	156.00
Capacity.....gallons	60	75	80	100	125	150	200
Price.....each	130.00	156.00	170.00	205.00	230.00	286.00	348.00
Price, with Loose Cover.....each	150.00	165.00	180.00	225.00	250.00	300.00	360.00
Price, with Galvanized Cover, Brass Hinges and Handles.....each	154.00	182.00	201.00	238.00	266.00	325.00	392.00
Price, with Copper Cover, Brass Hinges and Handles.....each	173.00	204.00	222.00	262.00	295.00	355.00	426.00

Steam Jacket Lard Kettles.

Capacity..... .....gallons	25	50	75	100	150	200
Price, with Fittings..each	50.00	60.00	70.00	80.00	120.00	160.00
Diameter, Inside.. inches	22	28	28	34	38	44
Depth, Inside.....inches	18	20	29	27	32	32
Total Height.....inches	39	42	52	51	57	57

Fittings for Lard Kettles comprise Air Valve, Drip Valve, Water Gauge and Stop Cock.

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THE W. M. PATTISON SUPPLY CO. 362 CLEVELAND

FEED WATER HEATERS.

Wainwright Even Flow Heaters, Horizontal or Vertical; Cast Iron Shells.

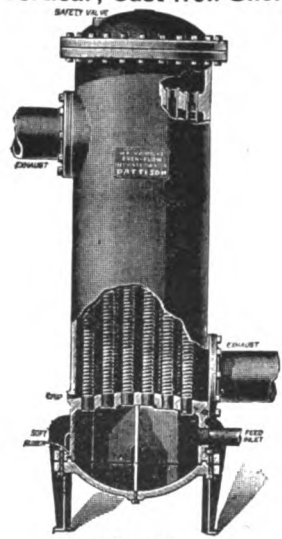

FIG. 999.

Number.	Price, Each.	Horse Power.	Diameter of Shell, Inches.	Height, Inches.	Exhaust, Inches.	Feed, Inches.	Weight, Pounds.
2B	140.00	50	12	64¼	6	1¼	827
3B	150.00	75	12	72¼	6	1½	930
4B	160.00	100	12	87¼	6	1½	1050
5B	180.00	125	12	87¼	8	1½	1050
6B	200.00	150	12	101¼	8	1½	1250
7B	280.00	200	15	93½	10	2	1550
8B	300.00	250	15	93½	10	2	1550
9B	360.00	300	18	90½	12	2½	1850
10B	390.00	350	18	102½	12	2½	2070
11B	440.00	400	18	102½	12	2½	2075
12B	600.00	500	22	105¼	14	2½	3045
13B	660.00	600	22	113¼	14	3	3400
14B	750.00	700	24	123¼	14	3	3650
15B	800.00	800	24	123¼	14	3	3650
16B	1000.00	900	27	122¼	14	4	4730
17B	1100.00	1000	27	122¼	14	4	4730
18B	1200.00	1100	27	132¼	14	4	4860
19B	1300.00	1200	27	132¼	14	4	4860
20B	1600.00	1300	30	131¼	18	4	7610
21B	1700.00	1400	30	137¼	18	4	7810
22B	1770.00	1500	30	143¼	18	4	8010
23B	2150.00	2000	36	138½	24	5	9995
24B	2650.00	3000	36	180¼	24	5	12300
25B	4400.00	4000	47	154	30	6	18790
26B	4950.00	5000	47	177½	30	6	20495

These Heaters are Fitted with Seamless Drawn Corrugated Copper Tubes.

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FEED WATER HEATERS.

The Cookson Combination Feed Water Heater, Purifier, Filter, Oil Separator and Condensation Receiver.

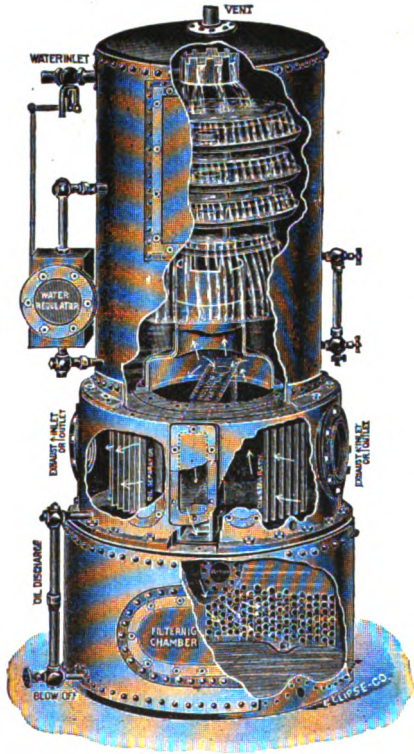

FIG. 1000.

Style A.

The Cookson Heaters are made in four styles, A, B, C, and D.

Style A, is a combination Heater for power plants.

Styles B, C and D are combination Heaters, adapted for heating systems.

The Cookson is the only OPEN HEATER that is reversible, all parts are interchangeable. They can be taken apart with a monkey wrench without breaking pipe connections. They separate the oil from the exhaust steam on entering the Heater from either exhaust opening; one an oil, the other a steam separator and operating by the steam passing through in either direction. Only that amount of steam necessary to heat the water to the boiling point, comes in contact with it (no sprays are used). The balance of the steam passes direct to the heating system through two separators, which removes all oil and water, giving dry, purified steam.

For Prices and Dimensions, see Page 364.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

FEED WATER HEATERS.

The Cookson Combination Feed Water Heaters, Purifiers, Filter, Oil Separators and Condensation Recievers.

Horse Power.	Price, Style A, Each.	Price, Style B, Each.	Price, Style C, Each.	Price, Style D. Each.	Diameter of Heating Chamber. Inches.	Diameter of Base, Inches.	Height, Inches.	Exhaust, Inches.	Suction and Return, Inches.	Water Inlet, Inches.	Weight, Pounds.
50	200.00	.....	.....	.....	12	22	54	3	1½	¾	900
75	220.00	270.00	300.00	340.00	16	22	60	4½	2	1	960
100	260.00	320.00	360.00	400.00	16	22	66	5	2	1	1125
125	280.00	340.00	380.00	420.00	22	30	66	6	2½	1	1760
150	360.00	420.00	460.00	500.00	22	30	72	6	2½	1¼	1850
200	400.00	460.00	500.00	540.00	26	36	80	7	3	1½	2750
250	440.00	500.00	540.00	580.00	26	36	86	8	3	1½	2925
300	480.00	540.00	580.00	620.00	26	36	96	8	3½	1½	3000
350	520.00	580.00	630.00	670.00	30	41	80	9	3½	1½	4250
400	560.00	620.00	670.00	720.00	30	41	86	10	4	2	4325
450	650.00	720.00	760.00	820.00	30	41	96	10	4	2	4440
500	720.00	800.00	860.00	920.00	36	46½	96	12	4	2	4500
550	800.00	880.00	940.00	1000.00	36	46½	108	12	4	2	4650
600	920.00	1000.00	1060.00	1120.00	36	46½	120	12	5	2	4770
700	980.00	1060.00	1120.00	1180.00	40	51	100	14	5	2½	5000
800	1040.00	1100.00	1180.00	1240.00	40	51	112	14	5	2½	5250
900	1140.00	1220.00	1280.00	1340.00	40	51	124	14	5	2½	5500
1000	1200.00	1280.00	1350.00	1420.00	44	54½	100	14	6	2½	5800
1200	1280.00	1360.00	1430.00	1500.00	44	54½	112	14	6	3	6200
1500	1420.00	1520.00	1600.00	1680.00	44	54½	124	14	6	3	6500
1800	1520.00	1620.00	1700.00	1780.00	50	61	112	16	6	3	7800
2000	1620.00	1720.00	1800.00	1880.00	50	61	124	16	8	4	8100
2500	1800.00	1950.00	2050.00	2130.00	50	61	144	16	8	4	8450
3000	1950.00	2100.00	2200.00	2320.00	56	68	124	18	10	5	11450
3500	2100.00	2300.00	2400.00	2520.00	56	68	144	20	10	5	11625
4000	2300.00	2600.00	2800.00	3000.00	56	68	168	20	12	6	12400
4500	2600.00	2900.00	3100.00	3300.00	56	68	192	20	12	6	13300

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 365

BLOW-OFF TANKS.

STEEL.

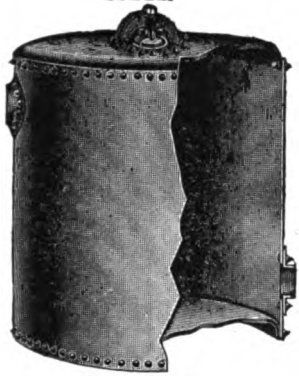

FIG. 1001.

CAST IRON.

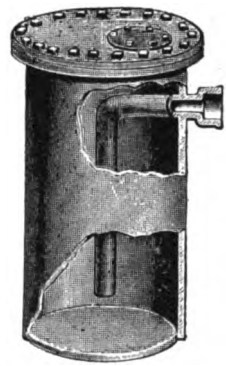

FIG. 1002.

Steel Blow-Off Tanks.

Diameter, Inches.	Height, Inches.	Thickness, Inches.	Capacity, Gallons.	Price, with Manhole and Two Flanges, Each.
20	24	¼	34	48.00
24	24	¼	47	55.00
30	24	¼	73	62.00
30	30	¼	90	64.00
36	30	¼	130	73.00
36	36	¼	160	75.00
36	48	¼	210	80.00

Flanges of any size required and located to suit purchaser. If Handhole is used instead of Manhole deduct $2.50 net.

Cast Iron Blow-Off and Catch Basins.

Depth, Inches.	DIAMETER, INCHES.				
	24	30	36	42	48
30	40.00	50.00	.....	.....	.....
36	50.00	60.00	70.00	.....	.....
42	60.00	70.00	80.00	90.00	.....
48	70.00	80.00	90.00	100.00	120.00
54	80.00	90.00	100.00	110.00	130.00
60	90.00	100.00	110.00	120.00	140.00
66	.....	.....	.....	.....	150.00
72	.....	.....	.....	.....	160.00

Threaded Flanges and Hub Inlets $1.00 to $2.00 each, extra.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM BOILERS.

VERTICAL TUBULAR BOILER.

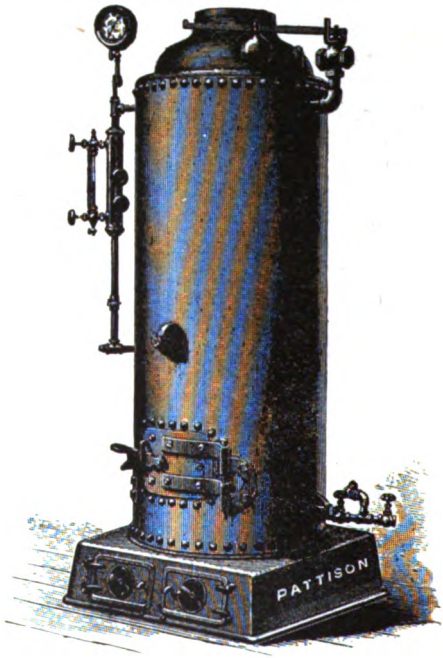

FIG. 1004.

STEAM FEED COOKER.

FIG. 1003.

Steam Feed Cooker.

Diameter of Boiler	inches	20
Height of Boiler	inches	44
Height over All	inches	58
Thickness of Shell	inches	$\frac{3}{16}$
Thickness of Heads	inches	$\frac{5}{16}$
Number of Tubes		13
Diameter of Tubes	inches	2
Length of Tubes	inches	30
Weight, with Fixtures	pounds	400
Price, Complete, with Fixtures	each	60.00

The Fixtures for Feed Cooker, include Base, Grate, Hood, Steam Gauge, Water Gauge, Gauge Cocks, Safety Valve, Blow-off Cock, Pump or Injector, 2½ feet of Section Hose, and 3 feet of Steam Pipe with Valve.

Vertical Tubular Boilers.

For specifications, see page 367.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 367

VERTICAL TUBULAR BOILERS.

Specifications.

Horse Power.	Diameter of Boiler, Inches.	Height of Boiler, Feet.	THICKNESS OF PLATE.			TUBES.			FURNACE.		APPROXIMATE SHIPPING WEIGHT.	
			Shell, Inches.	Heads, Inches.	Furnace Plate, Inches	Number.	Diameter, Inches.	Length, Inches.	Diameter, Inches.	Height, Inches.	Naked Boiler, Pounds.	Boiler, with Fixtures, Pounds.
4	24	4	1/4	1/4	1/4	28	2	24	20	24	900	1200
5	24	5	1/4	1/4	1/4	28	2	36	20	24	1000	1300
6	24	6	1/4	1/4	1/4	28	2	48	20	24	1100	1400
8	30	5	1/4	1/4	1/4	48	2	33	25	27	1300	1800
10	30	6	1/4	1/4	1/4	48	2	45	25	27	1500	2000
12	30	7	1/4	1/4	1/4	48	2	57	25	27	1700	2200
15	36	6	1/4	1/4	9/32	72	2	45	31	27	1900	2650
18	36	7	1/4	1/4	9/32	72	2	57	31	27	2150	2900
20	36	8	1/4	1/4	9/32	72	2	69	31	27	2400	3150
25	42	7½	9/32	1/4	5/16	96	2	60	37	30	3000	4000
30	42	8½	9/32	1/4	5/16	96	2	72	37	30	3350	4350
35	42	9½	9/32	1/4	5/16	96	2	84	37	30	3700	4700
40	48	9	5/16	1/4	5/16	130	2	78	43	30	4400	5800
45	48	9½	5/16	1/4	5/16	130	2	84	43	30	4600	6000
50	48	10	5/16	1/4	5/16	130	2	90	43	30	4800	6200
60	54	9	11/32	1/4	5/16	180	2	78	48	30	5500	7500
70	54	10	11/32	1/4	5/16	180	2	90	48	30	6000	8000
80	60	10	11/32	7/16	11/32	212	2	90	54	30	7400	9700
90	60	11	11/32	7/16	11/32	212	2	96	54	36	7800	10100
100	66	10	11/32	7/16	11/32	270	2	90	60	30	8700	11500
110	66	11	11/32	7/16	11/32	270	2	96	60	36	9200	12000
125	66	12	11/32	7/16	11/32	270	3	108	60	36	10000	12800

These Boilers are made of the best quality of steel, and tested at 150 pounds hydrostatic pressure before leaving the works. Fire boxes are well braced with screw stay bolts.

Fixtures include Base, Grates, Hood, Steam Gauge, Water Gauge, Gauge Cocks, Safety Valve, Blow-off, Check and Stop Valves. Bases are of cast iron, Hoods of improved pattern.

Since the cut was made the Water Column has been discarded, and the Steam Gauge, Water Gauge and Gauge Cocks are attached direct to Boiler.

Boilers 24, 30 and 36 inches diameter have two hand-holes in bottom of water leg and one hand-hole above crown sheet.

Boilers 42 inches diameter and larger have three hand-holes in bottom of water leg and three hand-holes above crown sheet.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 368

STEAM BOILERS.

FULL LENGTH TUBE,
VERTICAL TUBULAR BOILER.

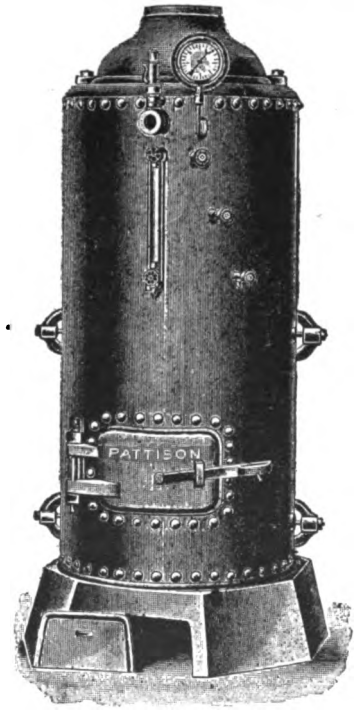

FIG. 1005.

VERTICAL TUBULAR BOILER,
WITH SUBMERGED TUBES.

FIG. 1006.

Full Length Tube, Vertical Tubular Boilers.

For Specifications, see page 369.

Vertical Tubular Boilers with Submerged Tubes, and Extension for Ash Pit and Ash Pit Door.

For Specifications, see page 370.

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THE W. M. PATTISON SUPPLY CO. PEERLESS

FULL LENGTH TUBE, VERTICAL TUBULAR BOILERS.

Specifications.

Number.	Horse Power.	Diameter of Boiler, Inches.	Height of Boiler, Feet.	THICKNESS OF PLATE.			TUBES.			FURNACE.		APPROXIMATE WEIGHT,	
				Shell, Inches.	Heads, Inches.	Furnace Plate, Inches.	Number.	Diameter, Inches.	Length, Inches.	Diameter, Inches.	Height, Inches.	Naked Boiler, Pounds.	Boiler with Fixtures, Pounds.
O	1½	20	3	7/32	5/16	No. 2	16	2	18	16	18	350	450
A	2	20	3½	7/32	5/16	No. 2	19	2	24	16	18	450	550
B	3	20	4	7/32	5/16	No. 2	19	2	30	16	18	550	650
1	4	24	4	1/4	3/8	No. 2	24	2	25	19	23	900	1300
2	5	24	5	1/4	3/8	No. 2	24	2	37	19	23	1000	1400
3	6	24	6	1/4	3/8	No. 2	24	2	49	19	23	1100	1500
3½	6	27	5	1/4	3/8	No. 2	30	2	34	21	26	1100	1500
4	7	30	5	1/4	3/8	No. 2	42	2	34	24	26	1200	1800
5	9	30	6	1/4	3/8	No. 2	42	2	46	24	26	1400	2000
6	11	30	7	1/4	3/8	No. 2	42	2	58	24	26	1600	2200
7	12	36	6	1/4	3/8	No. 2	60	2	46	30	26	1700	2300
8	14	36	7	1/4	3/8	No. 2	60	2	58	30	26	2100	2700
9	16	36	8	1/4	3/8	No. 2	60	2	70	30	26	2500	3100
10	20	42	7	5/16	3/8	5/16	84	2	54	36	30	2800	3700
11	23	42	8	5/16	3/8	5/16	84	2	66	36	30	3200	4100
12	27	42	9	5/16	3/8	5/16	84	2	78	36	30	3600	4500
13	30	48	8	11/32	3/8	11/32	120	2	66	42	30	4000	5400
14	35	48	9	11/32	3/8	11/32	120	2	78	42	30	4500	5900
15	40	48	10	11/32	3/8	11/32	120	2	90	42	30	5000	6400
16	50	48	10	11/32	3/8	11/32	150	2	90	42	30	5600	7000
16½	60	54	10	3/8	1/2	3/8	180	2	90	48	30	6500	8000
17	75	54	12	3/8	1/2	3/8	180	2	114	48	30	7600	9100

Prices on application.

☞ Boilers Nos. 16½ and 17 have wrought iron hoods, No. 10 iron. Bases are flat iron plates to set on brick walls. Boilers are made of Open Hearth Steel, 60,000 pounds tensile strength. All sizes are well braced by stay bolts. The vertical seams in boilers 30 inches in diameter and larger are double riveted. Boilers from Nos. 1 to 10 inclusive have shells of single sheet. There are two hand holes around water leg and the same number above the crown sheet in boilers, 20 to 30 inches in diameter; the larger sizes have three hand holes. **Boilers 20 inches in diameter, have 1½ inch water space around the fire box; 24 inches in diameter, 2 inch; all others, 2½ inch.**

The fixtures for each boiler include Base, Grate, Hood, Steam Gauge, Water Gauge, Gauge Cocks, Safety Valve, Blow-off Cock, Check and Stop Valves.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 370

VERTICAL BOILERS WITH SUBMERGED TUBES.

Specifications.

Horse Power.	Diameter of Boiler, Inches.	Height of Boiler, Without Extension, Feet.	Height of Extension, Inches.	Height of Cone, Inches.	Thickness of Plate.			Tubes.			Furnace.		Diameter of Smoke Stack, Inches.	Naked Boiler, Pounds	Boiler with Fixtures, Pounds.
					Shell, Inches.	Heads, Inches.	Fire Box, Inches.	Number.	Diameter, Inches.	Length, Inches.	Diameter, Inches.	Height, Inches.			
4	24	5½	8	15	¼	¼	9/32	28	2	27	20	24	10	1100	1220
5	24	6	8	15	¼	¼	9/32	28	2	33	20	24	10	1200	1320
6	24	6½	8	15	¼	¼	9/32	28	2	39	20	24	10	1300	1420
8	30	6	9	15	¼	¼	9/32	50	2	30	25	27	13	1600	1800
10	30	6½	9	15	¼	¼	9/32	50	2	36	25	27	13	1700	1900
12	36	6½	10	18	¼	¼	9/32	75	2	33	31	27	16	2200	2450
15	36	7	10	18	¼	¼	9/32	75	2	39	31	27	16	2300	2550
18	36	8	10	18	¼	¼	9/32	75	2	51	31	27	16	2500	2750
20	42	7½	11	24	9/32	9/32	9/32	110	2	36	37	30	19	3000	3300
25	42	8	11	24	9/32	9/32	9/32	110	2	42	37	30	19	3200	3500
30	42	9	11	24	9/32	9/32	9/32	110	2	54	37	30	19	3600	3900
35	48	9	12	27	5/16	5/16	5/16	146	2	51	43	30	22	4800	5300
40	48	9½	12	27	5/16	5/16	5/16	146	2	57	43	30	22	5000	5500
45	48	10	12	27	5/16	5/16	5/16	146	2	63	43	30	22	5200	5700
50	54	9½	14	30	5/16	5/16	5/16	194	2	54	48	30	26	5900	6500
60	54	10½	14	30	5/16	5/16	5/16	194	2	66	48	30	26	6400	7000

These Boilers are made of the best quality of steel, and are tested at 150 pounds hydrostatic pressure.

Fixtures comprise Grates, Steam Gauge, Water Gauge, Gauge Cocks, Safety Valve, Blow-off, Check and Stop Valves.

Cast Iron Base is not included among the regular Fixtures, and will not be furnished except when specially ordered, and then at additional cost. The Hood is not required with this style of Vertical Boiler.

Boilers 24, 30 and 36 inches diameter have two Hand Holes in bottom of water leg and one Hand Hole above crown sheet.

Boilers 42 inches diameter and larger have three Hand Holes in bottom of water leg and three Hand Holes above crown sheet.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TUBULAR BOILERS.

Portable Firebox Boiler.

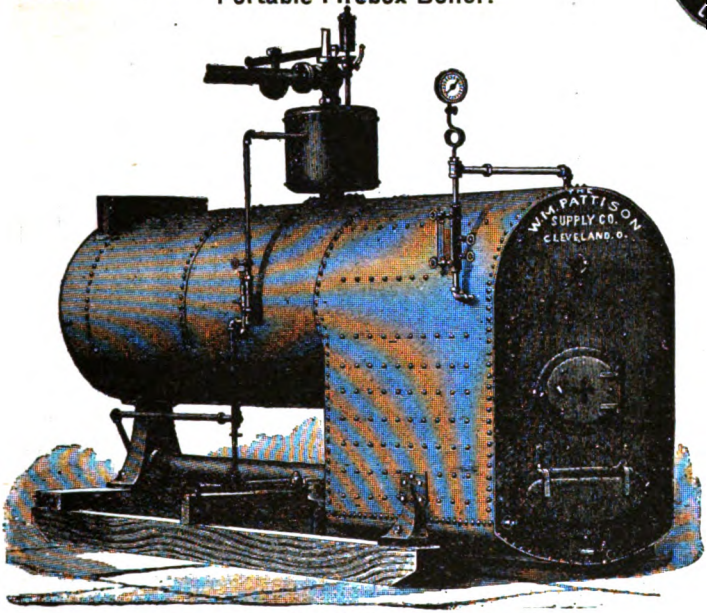

FIG. 1007.

Portable Firebox Boiler, with Water Front and Water Bottom Firebox.

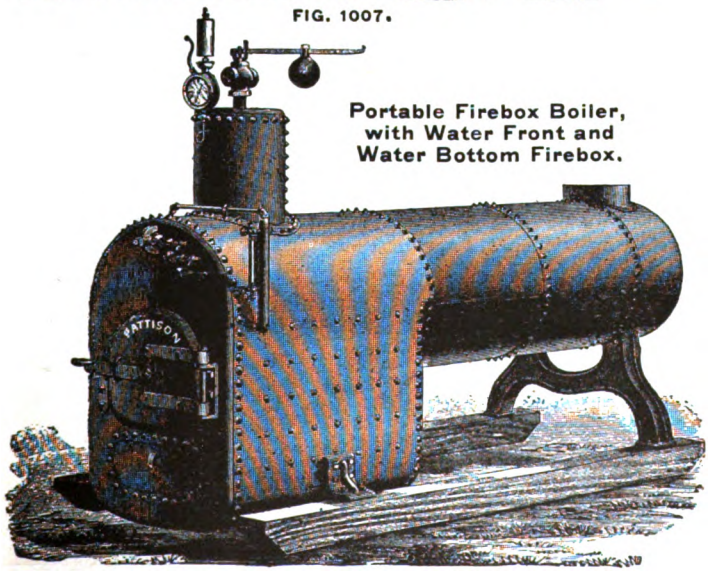

FIG. 1008.

For Specifications, see pages 372 and 373.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

PORTABLE FIREBOX BOILERS.

Specifications.

Number.	Horse Power.	Shell.		Thickness of Plate.			Diameter and Height of Independent Dome, Inches.	Size of Steam Outlet, Inches.	Firebox.			Tubes.			Stack.		Approximate Shipping Weight, Pounds.
		Diameter, Inches.	Length Over All. Ft. In.	Shell, Inches.	Butt Sheet, Inches.	Tube Sheet, Inches.			Length, Inches.	Width, Inches.	Height Above Grates, In.	Number.	Diameter, Inches.	Length, Feet.	Diameter, Inches.	Length, Feet.	
230	15	30	11-2	¼	5/16	⅜	16 x 16	2	42	25	21	32	2¼	6	12	17	4200
231	20	33	12-2	¼	5/16	⅜	18 x 18	2	44	28	26	41	2¼	7	14	20	5200
232	25	36	12-6	¼	5/16	⅜	18 x 18	2½	48	31	28	54	2¼	7	16	20	6100
233	30	36	15-2	¼	5/16	⅜	20 x 20	2½	54	31	31	43	2½	9	18	23	6800
234	35	40	15-2	¼	⅜	⅜	22 x 22	3	54	35	33	53	2½	9	18	23	7800
235	40	42	15-2	¼	⅜	⅜	24 x 24	3	54	37	35	61	2½	9	20	28½	8700
236	50	44	15-6	¼	⅜	⅜	26 x 26	3½	60	39	37	77	2½	9	22	28½	10100
237	60	44	17-6	¼	⅜	⅜	28 x 28	3½	60	39	37	77	2½	11	22	35	11200

Each Portable Boiler is mounted on skids by cast iron supports; the boiler is provided with independent detachable steam dome, cast iron fire and ash doors, cast iron smokehead, cast iron smokehead door, and cast iron stack saddle.

The fixtures included with each boiler are: Grates, grate bearing bar, safety valve (pop valve used on four smaller sizes), steam gauge and siphon, glass water gauge, gauge cocks, whistle, blow-off cock, check valve, stop valve, and smoke stack with guys.

The items specifically enumerated above are all that are furnished. Anything else ordered will be charged for extra.

The above specifications are subject to such modifications as in our judgment will tend to improvement in design or proportion.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 373

PORTABLE FIREBOX BOILERS.

With Water Front and Water Bottom Firebox.

Specifications.

Number.	Horse Power.	Diameter, Inches.	Thickness of Plate. Shell, Inches.	Heads, Inches.	Furnace Plates, In.	Diameter and Height of Dome, Inches.	Firebox. Length, Inches.	Width, Inches.	Height, Inches.	Tubes. Number.	Diameter, Inches.	Length, Feet.	Heating Surface, Square Feet.	Stack. Diameter, Inches.	Length, Feet	Approximate Shipping Weight, Pounds.
71	15	32	1/4	3/8	5/16	16 x 18	38	26	38	24	3	7	177	15	24	4600
72	20	34	1/4	3/8	5/16	17 x 20	48	28	38	30	3	8	235	16	28	5700
73	25	36	1/4	3/8	5/16	18 x 22	52	30	40	34	3	8	280	18	28	6300
74	30	40	9/32	3/8	5/16	20 x 22	52	34	44	38	3	8½	316	20	30	7500
76	40	44	9/32	3/8	5/16	22 x 24	52	38	50	46	3	9½	416	22	32	9000
78	50	48	5/16	3/8	5/16	24 x 26	60	42	52	53	3	11	547	24	38	12000
79	60	52	5/16	3/8	5/16	28 x 30	60	46	54	64	3	10½	627	26	36	13000
80	70	52	5/16	3/8	5/16	28 x 30	63	46	54	64	3	12	705	26	42	14000
82	80	56	11/32	7/16	5/16	30 x 30	63	50	60	76	3	12	825	28	42	16000
84	100	60	3/8	7/16	5/16	32 x 30	66	54	62	85	3	15	1138	30	52	20800
85	125	66	3/8	7/16	5/16	34 x 30	72	58	64	108	3	15	1407	32	52	23800
86	150	66	3/8	7/16	5/16	34 x 30	78	58	64	114	3	16	1574	34	56	25300
87	150	72	7/16	1/2	5/16	36 x 28	78	64	68	140	3	14	1616	38	50	29000

With Hand-holes in suitable places; also one Man-hole in Shell of Boilers 60 horse power and larger.

All Boilers with Water Bottom Fire-Box are mounted on skids unless otherwise ordered, in which case a proportionate amount will be deducted from the price for not mounting on skids.

Boilers 50 horse power and larger will have cast iron legs for support in addition to those shown in cut.

All Boilers have longitudinal seams double riveted.

Boilers 60 horse power and larger, have the Dome on the Waist of the Boiler instead of over the Fire-Box.

Boiler Fixtures comprise Smoke Stack, Galvanized Iron Guy Wires (four times the length of stack), Grates, Safety Valve, Steam Gauge, Water Gauge with Water Column, Gauge Cocks, Whistle, Blow-off, Check and Stop Valves.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

OIL WELL BOILERS.

With Contracted Waist and Water Front Firebox.

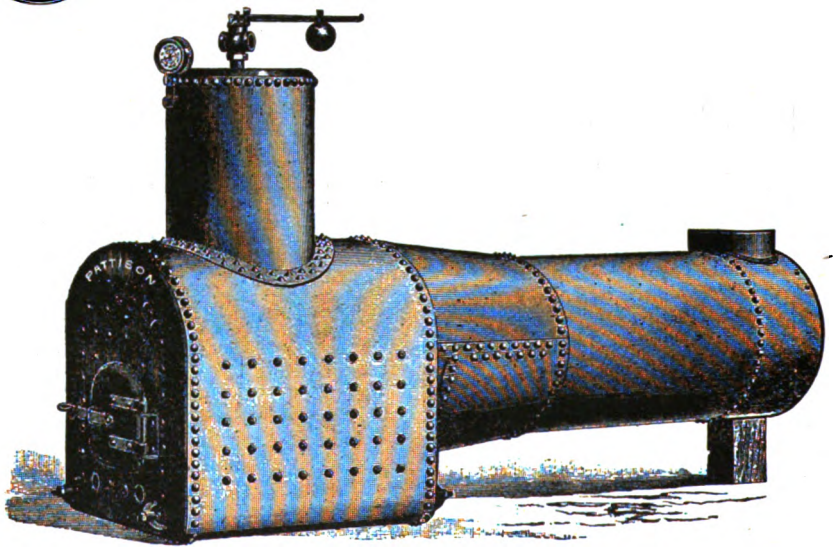

FIG. 1009.

Specifications.

Horse Power.	Diameter of Waist, Inches.	Diameter and Height of Dome, Inches.	Firebox.			Tubes.			Grate Surface, Square Feet.	Stack.		Weight, Pounds.
			Length, Inches.	Width, Inches.	Height, Inches.	Number.	Diameter, Inches.	Length, Feet.		Diameter, Inches.	Length, Feet.	
20	36	30 x 32	48	36	36	36	3	8	6	18	22	5600
25	40	32 x 34	48	40	40	45	3	8	7	20	22	6600
30	40	32 x 34	48	40	40	45	3	9	7	20	26	6900
35	40	32 x 34	48	40	40	45	3	10	7	20	30	7300
40	44	36 x 36	54	44	44	54	3	10	9	22	30	8600

The above Boilers are used very extensively throughout the Pennsylvania, Ohio, Texas and other Oil and Gas regions. They are made of the best 60,000 lbs. Tensile Strength Steel, thoroughly braced and stayed and tested at 150 lbs. hydrostatic pressure.

Fixtures comprise Grates, Smoke Stack, Guy Wires (four times the length of Stack), Steam Gauge, Gauge Cocks, Safety Valve, Blow-off Valve, Check Valve and Stop Valve.

The illustration above represents a boiler as furnished for the Pennsylvania Oil Field. Boilers for the Ohio Field are made with additional hand-holes, four on each side of fire-box and one on each side of fire door. For use in other Fields, unless otherwise ordered, Boilers will be furnished as per Cut.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 375

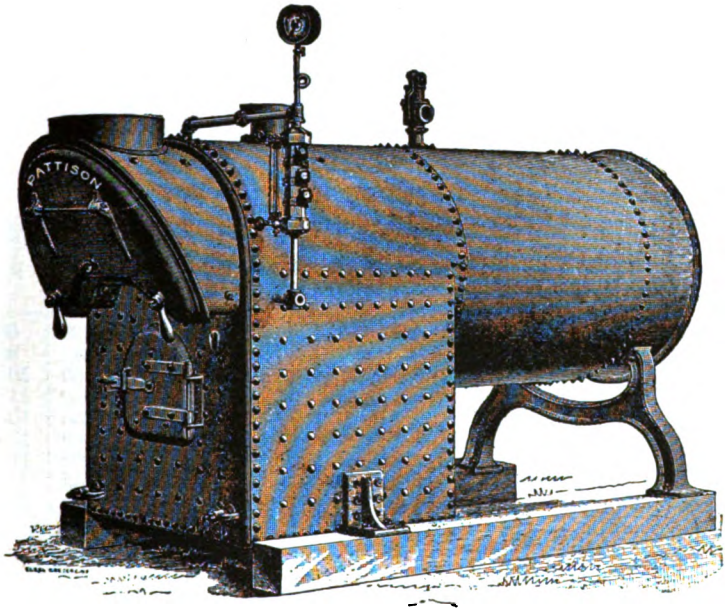

FIG. 1010.

SECTIONAL.

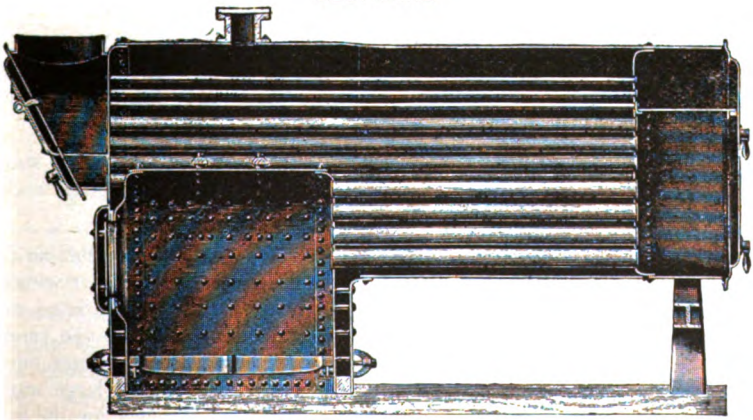

FIG. 1011.

For Specifications, see page 376.

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RETURN TUBULAR PORTABLE BOILERS.

Specifications.

Horse Power.	Diameter, Inches.	Thickness of Plate. Shell, Inches.	Heads, Inches.	Furnace Plates, Inches.	Fire Box. Length, Inches.	Width, Inches.	Number of 3 inch Tubes.	Length of 3 inch Tubes. Inches.	Number of 4 inch Tubes.	Length of 4 inch Tubes. Inches.	Heating Surface. Square Feet.	Grate Surface. Square Feet.	Stack. Diameter. Inches.	Length. Feet.	Weight, Pounds.
20	42	1/4	5/16	5/16	42	36	22	96	12	50	235	10½	16	35	6300
30	48	5/16	5/16	5/16	42	42	30	108	16	62	350	12¼	18	45	8500
40	52	5/16	5/16	5/16	52	46	40	114	20	58	460	16½	20	50	10100
50	56	5/16	5/16	5/16	54	50	50	114	28	56	570	19	22	50	11800
60	60	5/16	7/16	5/16	60	54	60	114	33	50	670	22½	24	50	13500
70	60	5/16	7/16	5/16	60	54	60	132	33	68	790	22½	24	60	15000
80	66	5/16	7/16	5/16	66	60	68	138	37	68	920	27½	26	60	17700
100	72	7/16	1/2	5/16	66	66	82	144	46	74	1160	30½	28	60	21800
125	72	7/16	1/2	7/16	66	66	82	168	46	98	1385	30¼	28	60	23800

With the bare boiler is furnished the necessary castings and skids for support. Cast iron smoke-box and combustion chamber doors, except the 20 horse-power, which has wrought iron doors, wrought iron lined fire door. The 100 and 125 horse-power having two fire doors.

Boilers 80 horse-power and larger will be furnished with manhole in shell, and crow foot instead of through brace, as shown in illustration on page 375. A dry pipe is furnished in all these boilers under the steam outlet. A drum will also be furnished when so ordered, at an additional cost.

The fixtures included with each boiler are: Grates, safety valve, steam gauge, water column attached to boiler with water gauge and gauge cocks, blow-off cock, check and feed valves and smoke stack with guys.

These boilers are designed to meet the demand for a boiler combining the features of the fire box and the economy of the brick set tubular boiler without cast or sheet iron fire boxes or shells lined with fire brick. There is no cast iron in contact with the heat excepting in the combustion chamber and smoke box doors. No fire bricks are used, the fire-boxes being entirely water lined. The fire-boxes are large with a semi-circular crown sheet with a large water space above, as will be seen in the illustration. The heat after leaving the fire-box passes through short 4-inch tubes, to the rear combustion chamber, thence through longer 3-inch tubes, to the smoke box and stack.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 377

INTERNAL FURNACE TUBULAR BOILER.

Scotch Marine.

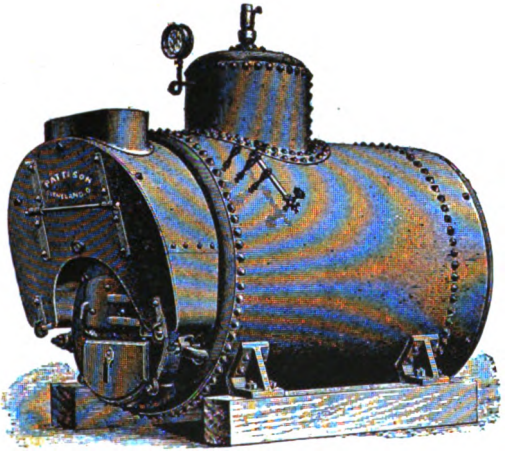

FIG. 1012.

Horse Power.	SHELL.		THICKNESS OF PLATE.			Diameter and Height of Dome, Inches.	FURNACE.			TUBES.			Weight, Pounds.
	Diameter, Inches.	Length, Inches.	Shell, Inches.	Head, Inches.	Furnace, Inches.		Length, Inches.	Diameter, Inches.	Length of Grates, Inches.	Number.	Length, Inches.	Diameter. Inches.	
25	48	72	$\frac{9}{32}$	$\frac{7}{16}$		24	60	22	36	64	60	2	4500
30	48	84	$\frac{9}{32}$	$\frac{7}{16}$		24	70	22	42	64	70	2	5000
30	54	72	$\frac{5}{16}$	$\frac{7}{16}$		26	60	26	36	80	60	2	5500
35	54	84	$\frac{5}{16}$	$\frac{7}{16}$		26	70	26	42	80	70	2	6000
40	60	84	$\frac{11}{32}$	$\frac{7}{16}$		30	68	28	42	96	68	2	7000
50	66	96	$\frac{3}{8}$	$\frac{7}{16}$		30	80	30	48	76	80	$2\frac{1}{4}$	8500
60	72	96	$\frac{11}{32}$	$\frac{1}{2}$		36	80	36	48	94	80	$2\frac{1}{4}$	10600

Boilers are furnished with legs and skids. Wrought iron smoke-box and combustion chamber arranged for brick lining. Manhole in shell of all boilers, two handholes in front head.

Longitudinal seams double riveted; Domes 26 inches in diameter and larger, double riveted to shell; Heads braced with through rods. The fixtures include, cast iron front with fire and ash door, grates, width of furnace with bearer, safety valve, steam gauge, water gauge, gauge cocks, blow-off, check and feed valves.

These boilers are intended for 100 pounds working pressure.

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INTERNAL FURNACE TUBULAR BOILER.

With Corrugated Furnace.

. Scotch Marine.

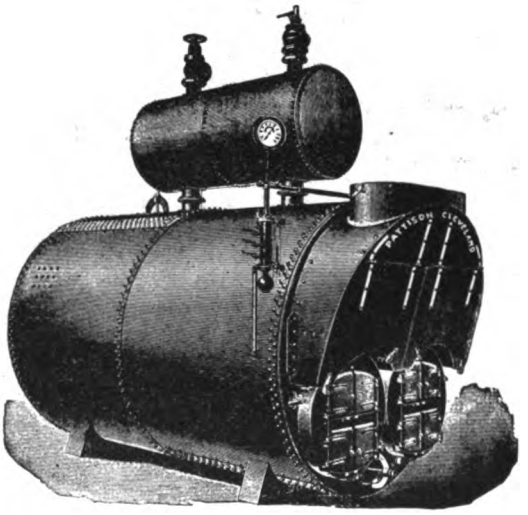

FIG. 1013.

Horse Power.	Diameter, Inches.	Thickness of Plate. Shell, Inches.	Thickness of Plate. Heads, Inches.	Thickness of Plate. Steam Drum, Inches.	Diameter and Length of Steam Drum, Feet.	Furnace. Length, Feet.	Furnace. Diameter, Inches.	Furnace. Length of Grates, Inches.	Tubes. Number.	Tubes. Length, Feet.	Tubes. Diameter, Inches.	Weight Pounds.
85	78	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{1}{4}$ and $\frac{5}{16}$	3 x 4	12	36	66	56	12	3	18900
110	84	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{1}{4}$ and $\frac{5}{16}$	3 x 4	12	38	72	74	12	3	22400
140	90	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{1}{4}$ and $\frac{5}{16}$	3 x 5	12	45	84	96	12	3	27200
175	108	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{1}{4}$ and $\frac{5}{16}$	3 x 5	12	34	72	120	12	3	36200
225	114	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{1}{4}$ and $\frac{5}{16}$	3 x 6	12	38	84	154	12	3	44500
250	120	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{9}{32}$ and $\frac{7}{16}$	$3\frac{1}{2}$ x 6	12	40	84	170	12	3	49300

Fixtures comprise Cast Iron Front with Fire and Ash Doors and liner for Fire Doors, Grates, width of Furnace with Bearers. Two Cast Iron Stands, Pop Safety Valve, Steam Supply Valve, Water Column attached to Boiler with Water Gauge, Gauge Cocks and Steam Gauge attached, Blow-off, Check and Feed Valves.

Boilers are tested at 190 lbs. water pressure and 125 lbs. steam pressure and made absolutely tight at this latter pressure, minute leaks being searched for with a torch. **Complete specifications on application.**

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THE W. M. PATTISON SUPPLY CO. 379 CLEVELAND

TUBULAR BOILERS.

Special Tubular Boilers for High Pressure.

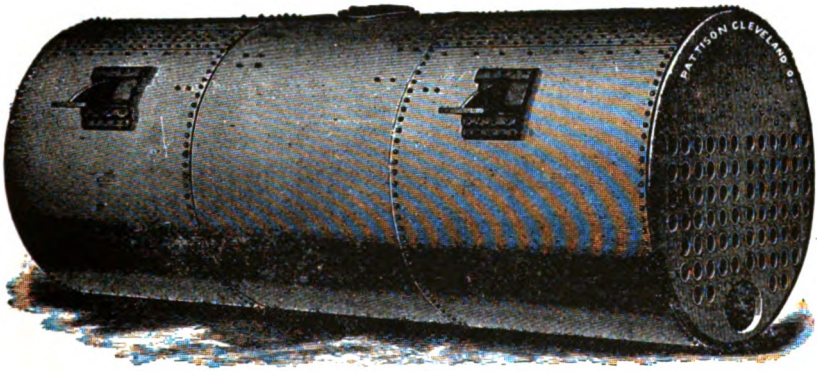

FIG. 1014.

Built to Order Only.

PRICES SUBMITTED ON SPECIFICATIONS.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STATIONARY TUBULAR BOILERS.

Half Arch Front.

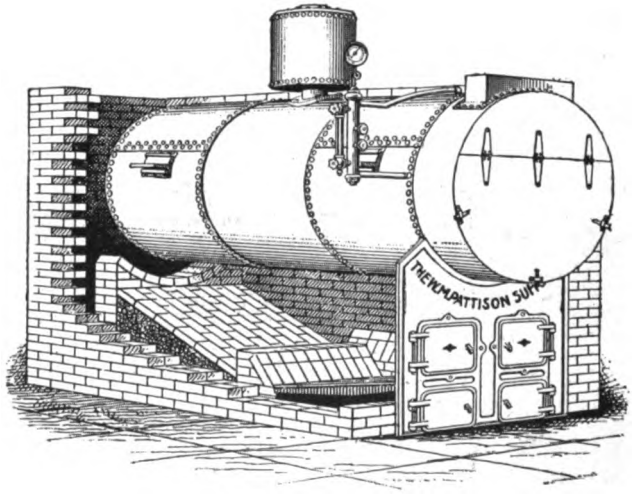

FIG 1015

For Specifications, see page 381.

Full Arch Front.

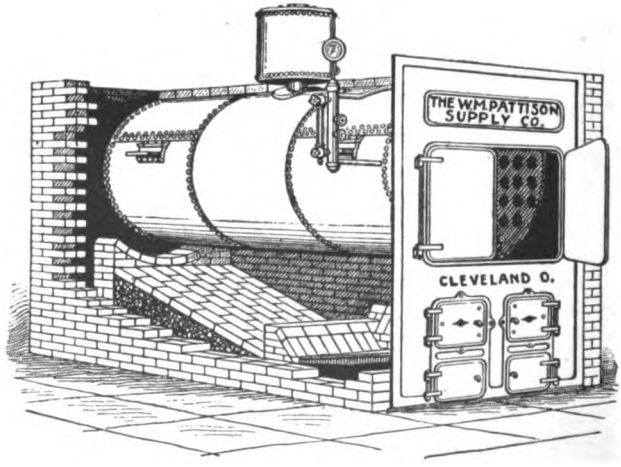

FIG. 1016.

For Specifications, see page 382.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STATIONARY TUBULAR BOILERS WITH HALF ARCH FRONT.

Specifications, Single Setting.

Number.	Horse Power.	Shell,		Thickness of Plate.		Diameter and Height of Dome, Inches.	Size of Steam Outlet, Inches.	Tubes.			Grate Surface.		Stack.		Approximate Shipping Weight.	
		Diameter, Inches.	Length, Feet	Shell, Inches	Heads, Inches.			Number.	Diameter, Inches.	Length, Feet.	Length, Inches.	Width, Inches.	Diameter, Inches.	Length, Feet.	Naked Boiler, Pounds.	Boiler with Fixtures, Pounds.
155	15	32	10	1/4	3/8	16	2	18	3	10	42	24	14	28 1/2	2200	3700
156	20	36	10	1/4	3/8	18	2	24	3	10	42	30	16	28 1/2	2700	4700
157	25	36	12	1/4	3/8	18	2 1/2	24	3	12	48	30	16	34 1/2	3100	5200
158	30	40	12	1/4	3/8	20	2 1/2	30	3	12	48	36	18	34 1/2	3600	5900
159	35	44	12	1/4	3/8	22	3	36	3	12	48	42	20	34 1/2	4100	7000
160	40	48	12	9/32	7/16	24	3	42	3	12	48	42	22	34 1/2	5100	7800
161	50	52	14	9/32	7/16	26	3 1/2	36	3 1/2	14	54	48	24	40	6700	10000
162	60	56	14	5/16	7/16	28	3 1/2	42	3 1/2	14	54	48	26	40	7700	11000
163	70	54	16	5/16	7/16	28	3 1/2	38	4	16	60	48	26	46	8700	12200
164	80	60	16	11/32	7/16	30	4	46	4	16	60	54	28	46	10700	14700
165	100	66	16	3/8	1/2	33	4 1/2	57	4	16	60	60	32	46	13300	18000
166	125	72	16	13/32	1/2	36	5	72	4	16	60	66	36	46	16100	21500
167	140	72	18	13/32	1/2	36	5	72	4	18	60	72	36	51	18000	23500

The fixtures for each boiler include dome, smoke head, smoke head door and stack saddle, half arch front, grates, grate bearing bar, back arch bars, roller support or side wings (roller support is included on boilers 48 inches in diameter and under, side wings included on boilers 52 inches in diameter and over), soot door and frame, safety valve, steam gauge, water column and pipe connections, glass water gauge, gauge cocks, whistle, blow-off cock, check valve, stop valve, and stack with guys.

Fixed domes or dry pipes may be substituted for independent domes.

The items specifically enumerated above are all that are furnished. Anything else ordered will be charged for extra.

The above specifications are subject to such modifications as in our judgment will tend to improvement in design or proportion.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STATIONARY TUBULAR BOILERS WITH FULL ARCH FRONTS.

Specifications, Single Setting.

Number.	Horse Power.	Shell.		Thickness of Plate.		Diameter and Height of Dome, Inches.	Size of Steam Outlet, Inches.	Tubes.			Grate Surface.		Stack.		Approximate Shipping Weight.	
		Diameter, Inches.	Length, Feet.	Shell, Inches.	Heads, Inches.			Number.	Diameter, Inches.	Length, Feet.	Length, Inches.	Width, Inches.	Diameter, Inches.	Length, Feet.	Naked Boiler, Pounds.	Boiler with Fixtures, Pounds.
180	15	32	10	$\frac{1}{4}$	$\frac{3}{8}$	16	2	18	3	10	42	24	14	$28\frac{1}{2}$	2200	4300
181	20	36	10	$\frac{1}{4}$	$\frac{3}{8}$	18	2	24	3	10	42	30	16	$28\frac{1}{2}$	2700	5300
182	25	36	12	$\frac{1}{4}$	$\frac{3}{8}$	18	$2\frac{1}{2}$	24	3	12	48	30	16	$34\frac{1}{2}$	3100	5800
183	30	40	12	$\frac{1}{4}$	$\frac{3}{8}$	20	$2\frac{1}{2}$	30	3	12	48	36	18	$34\frac{1}{2}$	3600	6600
184	35	44	12	$\frac{1}{4}$	$\frac{3}{8}$	22	3	36	3	12	48	42	20	$34\frac{1}{2}$	4100	7700
185	40	48	12	$\frac{9}{32}$	$\frac{7}{16}$	24	3	42	3	12	48	42	22	$34\frac{1}{2}$	5100	8900
186	50	52	14	$\frac{9}{32}$	$\frac{7}{16}$	26	$3\frac{1}{2}$	36	$3\frac{1}{2}$	14	54	48	24	40	6700	10900
187	60	56	14	$\frac{5}{16}$	$\frac{7}{16}$	28	$3\frac{1}{2}$	42	$3\frac{1}{2}$	14	54	48	26	40	7700	12200
188	70	54	16	$\frac{5}{16}$	$\frac{7}{16}$	28	$3\frac{1}{2}$	38	4	16	60	48	26	46	8700	13400
189	80	60	16	$\frac{11}{32}$	$\frac{7}{16}$	30	4	46	4	16	60	54	28	46	10700	15900
190	100	66	16	$\frac{3}{8}$	$\frac{1}{2}$	33	$4\frac{1}{2}$	57	4	16	60	60	32	46	13300	19400
191	125	72	16	$\frac{13}{32}$	$\frac{1}{2}$	36	5	72	4	16	60	66	36	46	16100	23000
192	140	72	18	$\frac{13}{32}$	$\frac{1}{2}$	36	5	72	4	18	60	72	36	51	18000	25000

The fixtures for each boiler include dome, Full Arch Front, grates, grate bearing bar, back arch bars, side wings with plates and rollers, soot door and frame, safety valve, steam gauge, water column and pipe connections, glass water gauge, gauge cocks, blow-off cock, check valve, stop valve, and stack with guys.

The boiler is furnished with flush ends.

Fixed domes or dry pipes may be substituted for independent domes.

The items specifically enumerated above are all that are furnished. Anything else ordered will be charged for extra.

The above specifications are subject to such modifications as in our judgment will tend to improvement in design or proportion.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND
383

STATIONARY TUBULAR BOILERS WITH SEAMLESS BOTTOMS.

Half Arch Front.

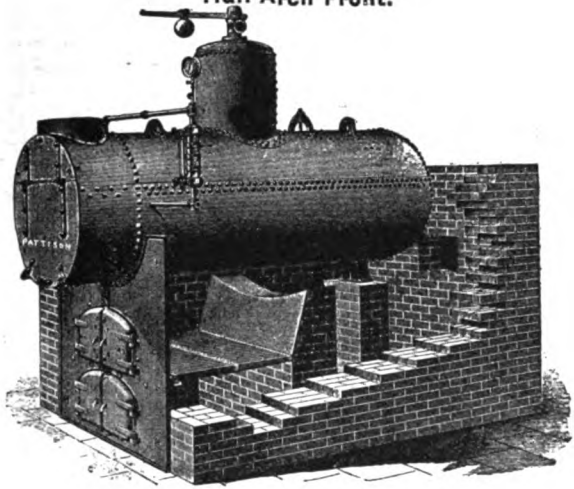

FIG. 1017.

Full Arch Front.

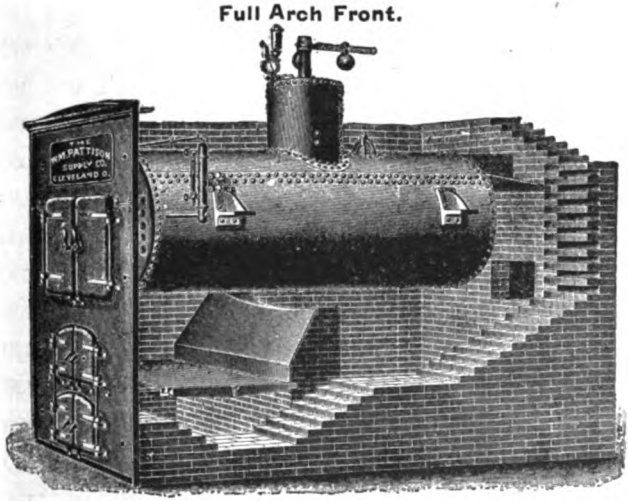

FIG. 1018.

These boilers are made seamless bottom, in sizes up to and including 44 inches by 14 feet. Either seamless bottom or in circular courses in sizes from 48 inches by 12 feet to 72 inches by 18 feet. Manhole in shell of all Boilers except those 36, 42 and 44 inches in diameter. One handhole in Boilers 10 feet and shorter and two in those over 10 feet. 36, 42 and 44-inch Boilers will be furnished with a 4x6 inch handhole in front head above tubes. Domes less than 26 inches in diameter are single riveted to shell. Boilers with half arch fronts are furnished with back stands instead of side lugs.

For Specifications, see page 384

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THE W. M. PATTISON SUPPLY CO. CLEVELAND, O.

STATIONARY TUBULAR BOILERS WITH HALF AND FULL ARCH FRONTS, SEAMLESS BOTTOMS.

Specifications.

Horse Power.	Diameter, Inches.	THICKNESS OF PLATE.				Diameter and Height of Dome, Inches.	TUBES.			STACK.		Weight of Half Arch Front Boilers and Fixtures, Pounds.	Weight of Full Arch Front Boilers and Fixtures, Pounds.
		Shell.	Heads, Inches.	Dome, Inches.	Dome Head, Inches.		Number.	Diameter, Inches.	Length, Feet.	Diameter, Inches.	Length, Feet.		
15	36	1/4	5/16	1/4	5/16	20 x 22	26	3	8	16	24	4000	4800
20	36	1/4	5/16	1/4	5/16	20 x 22	26	3	10	16	30	4500	5400
25	36	1/4	5/16	1/4	5/16	20 x 22	26	3	12	16	36	5100	5900
25	42	1/4	5/16	9/32	5/16	22 x 24	36	3	10	18	30	5800	6700
30	42	1/4	5/16	9/32	5/16	22 x 24	36	3	12	18	36	6300	7400
30	44	1/4	5/16	9/32	5/16	22 x 24	44	3	10	20	30	6400	7500
35	44	1/4	5/16	9/32	5/16	22 x 24	44	3	12	20	36	7000	8100
40	44	1/4	5/16	9/32	5/16	22 x 24	44	3	14	20	40	7800	8800
40	48	9/32	7/16	5/16	5/16	26 x 28	50	3	12	22	36	8700	9500
45	48	9/32	7/16	5/16	5/16	26 x 28	50	3	14	22	40	9400	10300
50	48	9/32	7/16	5/16	5/16	26 x 28	50	3	16	22	50	10300	11200
50	54	5/16	7/16	5/16	5/16	30 x 34	64	3	12	26	36	10500	11400
60	54	5/16	7/16	5/16	5/16	30 x 34	64	3	14	26	40	11500	12500
65	54	5/16	7/16	5/16	5/16	30 x 34	64	3	15	26	45	12000	12800
70	54	5/16	7/16	5/16	5/16	30 x 34	64	3	16	26	50	12500	13300
60	60	11/32	7/16	5/16	7/16	32 x 36	80	3	12	28	36	12500	13300
70	60	11/32	7/16	5/16	7/16	32 x 36	80	3	14	28	40	13700	14600
75	60	11/32	7/16	5/16	7/16	32 x 36	80	3	15	28	45	14300	15300
80	60	11/32	7/16	5/16	7/16	32 x 36	80	3	16	28	50	14900	16000
85	66	3/8	7/16	11/32	7/16	36 x 40	98	3	14	30	40	15900	17100
100	66	3/8	7/16	11/32	7/16	36 x 40	98	3	16	30	50	17500	18700
110	66	3/8	7/16	11/32	7/16	36 x 40	98	3	18	30	55	19100	20000
125	72	13/32	1/2	11/32	7/16	36 x 40	120	3	16	34	50	21000	22000
150	72	13/32	1/2	11/32	7/16	36 x 40	120	3	18	34	55	23200	24300

The fixtures for each boiler include grates, grate bearing bar, back arch bars, soot door and frame, safety valve, water column and pipe connections, glass water gauge, gauge cocks, steam gauge, blow-off, feed and check valves and stack with guys.

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THE W. M. PATTISON SUPPLY CO. 385 CLEVELAND

Our boilers are made of flange steel 60,000 pounds tensile strength, ductility 56 per cent, elongation 25 per cent in a length of eight inches and tested under 150 pounds hydrostatic pressure; well braced with steel crow-foot braces. Longitudinal seams double riveted and placed above the fire line. Each ring is made from a single sheet and has only one longitudinal seam. The tubes are carefully expanded and beaded over at both ends. All caulking is performed without injury to the sheets.

Boilers 48 inches and over in diameter have a manhole above the tubes in the back head and below the tubes in the front end. These manholes are sufficiently large to permit a man to enter with ease. Boilers can be furnished with dome or a dry pipe can be substituted for it, or can be furnished without either, as desired.

Commercial Horse Power of Chimneys for a Given Diameter of Flue.

Diameter of Flue, Inches.	HEIGHT OF CHIMNEY, FEET.														
	50	60	70	80	90	100	110	125	135	150	175	200	225	250	300
	HORSE POWER.														
15	16	18	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	84	92	100	107	113	119	124	.....	.....	.....	.....	.....	.....	.....	.....
45	.....	.....	250	270	288	305	321	345	353	385	.....	.....	.....	.....	.....
55	.....	.....	.....	330	370	405	438	465	490	530	560	.....	.....	.....	.....
75	.....	.....	.....	.....	860	900	935	1000	1036	1090	1185	1270	1345	1415	1480
90	.....	.....	.....	.....	.....	1350	1410	1500	1556	1640	1770	1890	2000	2100	2190
100	.....	.....	.....	.....	.....	1665	1725	1820	1880	1970	2115	2255	2390	2520	2645

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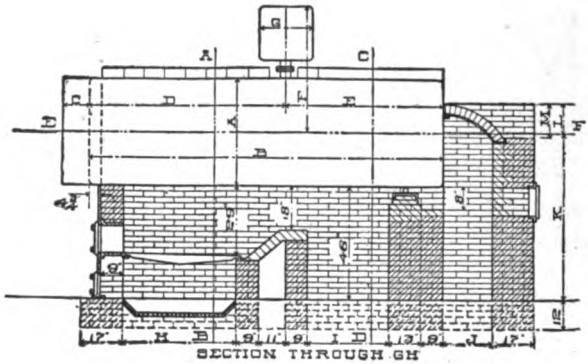
THE W. M. PATTISON SUPPLY CO. CLEVELAND 386

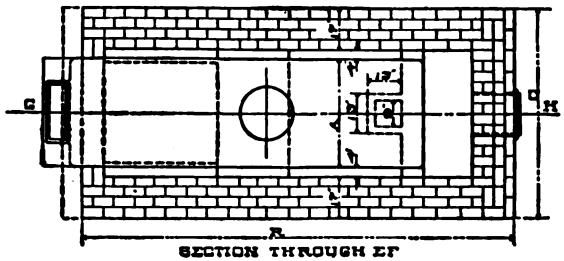
SINGLE WALL SETTING

For Standard Tubular Boilers with Half Arch Front.



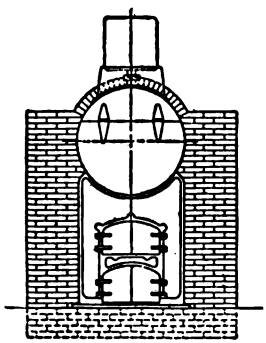
SECTION THROUGH GH

FIG. 1019.



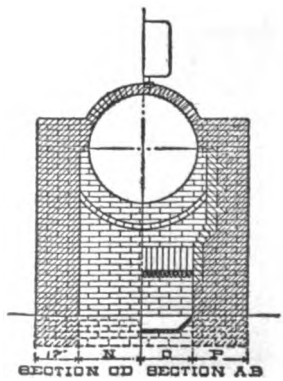
SECTION THROUGH EF

FIG. 1020.



FRONT ELEVATION

FIG. 1021.



SECTION CD SECTION AB

FIG. 1022.

For Dimensions, see page 389.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 387

DOUBLE WALL SETTING

For Standard Tubular Boilers with Half Arch Front.

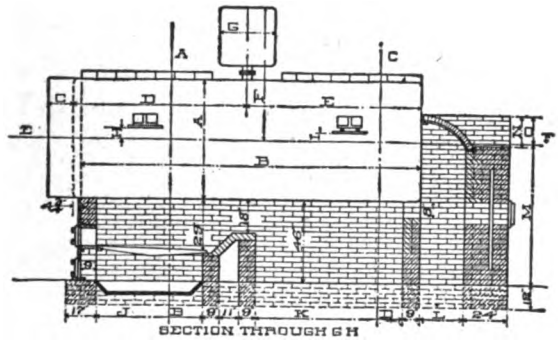

FIG. 1023.

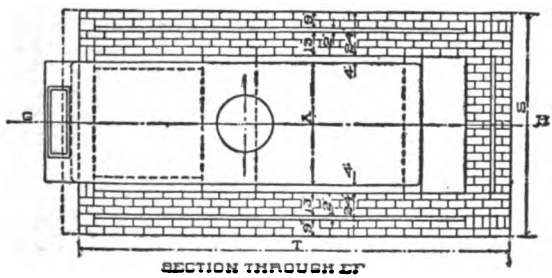

FIG. 1024.

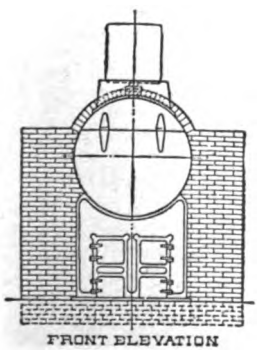

FIG. 1025.

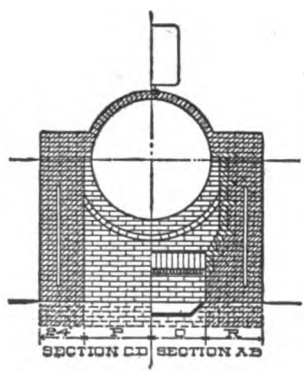

FIG. 1026.

For Dimensions, see page 389.

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SETTING FOR STANDARD BOILERS

With Full Front.

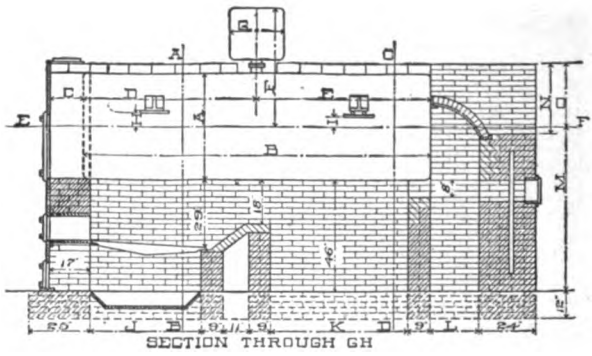

FIG. 1027

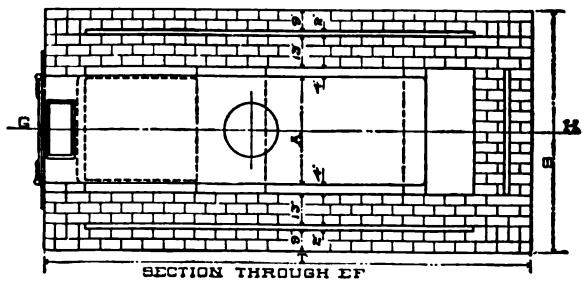

FIG. 1028.

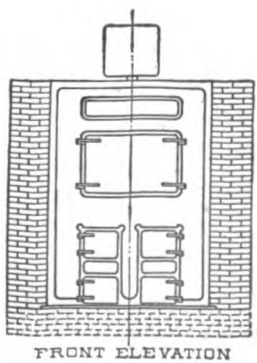

FIG. 1029.

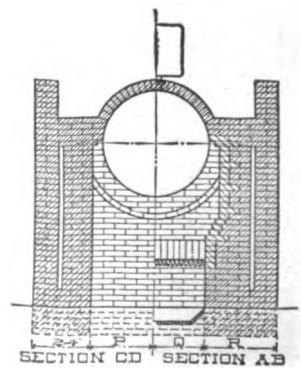

FIG. 1030.

For Dimensions, see page 389.

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THE W. M. PATTISON SUPPLY CO. 389 CLEVELAND

DIMENSIONS FOR SETTING STANDARD TUBULAR BOILERS.

Half Arch Front, Single Wall Setting, Page 386.

Horse Power.	BOILER SETTING.																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
	In.	Ft.	In.	Ft. In.	Ft. In.	In.	In.	In.	In.	In.	In.	In.	In	In.	In.	In.	In.	Ft. In.
15	32	10	11	5—7¼	4—4¾	40	16	40	15¼	16	62	6	14	20	12	25	74	12—4¼
20	36	10	11	5—7¼	4—4¾	44	18	40	15¼	16	64	8	14	22	15	24	78	12—4¼
25	36	12	11	6—7¼	5—4¾	44	18	46	33¼	16	64	8	14	22	15	24	78	14—4¼
30	40	12	11	6—7¾	5—4¼	48	20	46	33¼	16	66	9¼	14	24	18	23	82	14—4¼
35	44	12	11	6—7¾	5—4¼	51¾	22	46	33¼	16	68	11	14	26	21	22	86	14—4¼
40	48	12	11	6—7¾	5—4¼	55¾	24	46	33¼	16	70	12	14	28	21	24	90	14—4¼

Half Arch Front, Double Wall Setting, Page 387.

Horse Power.	BOILER SETTING.																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
	In.	Ft.	In.	Ft. In	Ft. In	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	Ft. In.
40	48	12	11	6-7¾	5-4¼	55¾	24	6½	5⅜	46	46¼	16	70	14	12	28	21	31	104	14—11¼
50	52	14	12	7-0	7-0	59¾	26	7	6⅛	53	63¼	20	72	14	12	30	24	30	108	17— 3¼
60	56	14	12	7-0	7-0	63¾	28	7	5¾	53	63¼	20	74	14	13½	32	24	32	112	17— 3¼
70	54	16	12	8-0	8-0	61¾	28	7	5¾	59	81¼	24	73	14	13½	31	24	31	110	19— 7¼
80	60	16	13	8-0	8-0	67¾	30	6½	5⅛	59	81¼	24	76	16½	14	34	27	31	116	19— 7¼
100	66	16	14	8-0	8-0	73½	33	5¼	4	59	81¼	24	79	16½	15	37	30	31	122	19— 7¼
125	72	16	14	8-0	8-0	79½	36	12½	10⅞	59	81¼	24	82	16½	15	40	33	31	128	19— 7¼
140	72	18	14	9-0	9-0	79½	36	12½	10⅝	59	81¼	24	82	16½	15	40	33	31	128	19 — 7¼

Full Arch Front, Page 388.

Horse Power.	BOILER SETTING.																		
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
	In.	Ft.	In.	Ft. In	Ft. In	In.	In.	In.	In.	In.	In.	In.	In	In.	In.	In.	In.	In.	In.	Ft. In.
15	32	10	14	5-7¼	4-4¾	40	16	2¼	1½	40	39	16	62	28	20	20	12	32	88	14 — 6
20	36	10	14	5-7¼	4-4¾	44	18	3	2¼	40	39	16	64	28	22	22	15	31	92	14 — 6
25	36	12	14	6-7¼	5-4¾	44	18	3	2¼	46	57	16	64	28	22	22	15	31	92	16 — 6
30	40	12	14	6-7¾	5-4¼	48	20	3⅛	2⅜	46	57	16	66	28¾	24	24	18	30	96	16 — 6
35	44	12	14	6-7¾	5-4¼	51¾	22	3⅜	3	46	57	16	68	29	26	26	21	29	100	16 — 6
40	48	12	14	6-7¾	5-4¼	55¾	24	6¼	5⅜	46	57	16	70	34	28	28	21	31	104	16 — 6
50	52	14	14	7-0	7-0	59½	26	7	6¼	53	74	20	72	32	30	30	24	30	108	18 —10
60	56	14	14	7-0	7-0	63¾	28	7	5¾	53	74	20	74	36½	32	32	24	32	112	18 —10
70	54	16	14	8-0	8-0	61¾	28	7	5¾	59	92	24	73	31½	31	31	24	31	110	21 — 2
80	60	16	14	8-0	8-0	67¾	30	6¼	5⅛	59	92	24	76	36½	34	34	27	31	116	21 — 2
100	66	16	14	8-0	8-0	73½	33	5¼	4	59	92	24	79	45½	37	37	30	31	122	21 — 2
125	72	16	14	8-0	8-0	79½	36	12½	10⅞	59	92	24	82	42½	40	40	33	31	128	21 — 2
140	72	18	14	9-0	9-0	79½	36	12½	10⅞	59	92	24	82	42½	40	40	33	31	128	21 — 2

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

MATERIALS FOR STANDARD SETTING.

Stationary Tubular Boilers.

SIZE.		TUBULAR BOILERS, HALF ARCH FRONT.								SIZE.		TUBULAR BOILERS, FULL ARCH FRONT.							
Inches.	Feet.	Common Brick with Brick Foundation.	Common Brick with Stone Foundation.	Stone Foundation, Cubic Feet.	Fire Brick.	Bushels of Sand.	Barrels of Fire Clay.	Bushels of Lime.	Bushels of Cement or Lime for Foundation.	Inches.	Feet.	Common Brick with Brick Foundation.	Common Brick with Stone Foundation.	Stone Foundation, Cubic Feet.	Fire Brick.	Bushels of Sand.	Barrels of Fire Clay.	Bushels of Lime.	Bushels of Cement or Lime for Foundation.
32	10	6500	5270	81	510	60	1	13	3	32	10	7950	6600	103	500	79	1	18	4
36	10	6785	5535	84	560	65	1	14	3	36	10	8085	6700	109	560	83	1	19	4
36	12	7375	6000	90	600	70	1	15	3½	36	12	9050	7565	112	600	89	1¼	20	4½
40	12	8030	6640	92	625	75	1½	16	3½	40	12	9900	8390	114	625	93	1¼	21	4½
44	12	8515	7115	94	655	80	1½	17	4	44	12	10065	8540	118	655	97	1¼	22	4½
48	12	8920	7460	96	730	85	1½	18	4	48	12	10890	9290	120	730	101	1½	23	5
52	14	9950	8350	104	790	90	1½	19	4	52	14	12315	10565	130	790	114	1½	26	5
56	14	10420	8770	106	830	95	2	20	4½	56	14	13210	11390	133	830	118	2	27	5½
54	16	10800	8900	105	840	98	2	21	4½	54	16	13800	11950	140	840	120	2	28	5½
60	16	11890	10135	116	875	105	2	23	5	60	16	14650	12700	145	875	128	2	30	6
66	16	12550	10720	118	975	108	2	23	5	66	16	15450	13450	147	975	139	2½	32	6
72	16	13190	11310	121	1045	110	2	25	5	72	16	16345	14290	150	1045	146	2½	34	6
72	18	14200	12400	126	1200	115	2½	30	6	72	18	18000	15800	162	1200	154	3	39	7

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

BOILER FRONTS.

Half Arch Front.

FIG. 1031.

This style of Half Arch Front, having two doors covering separate fire openings, is regularly used with Boilers of fifty-six inches in diameter and larger.

Full Arch Front.

FIG. 1032.

This style of Full Arch Front is the general design used with all sizes of Boilers.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 392

BOILER FRONTS.

Half Arch Front.

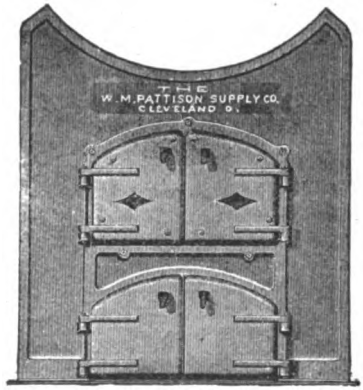

FIG. 1033.

This style of Half Arch Front, having two doors covering **a single fire opening, is regularly used with Boilers fifty-two inches in diameter and smaller.**

Three-Quarter Arch Front.

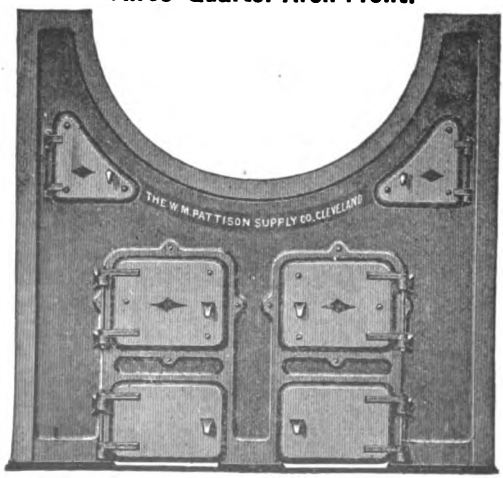

FIG. 1034.

This style of Three Quarter Arch Front is furnished with or without sawdust doors; for ordinary purposes these doors are omitted, although the illustration above shows them.

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THE W. M. PATTISON SUPPLY CO. 393 CLEVELAND

GRATE BARS.

COMMON GRATE BAR.

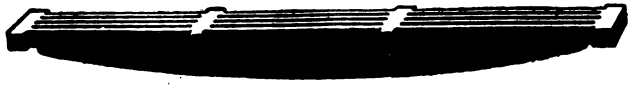

FIG. 1035.

TUPPER GRATE BAR.

FIG. 1036.

HERRING BONE GRATE BAR.

FIG. 1037.

Prices on Application.

HALL GRATE BAR.

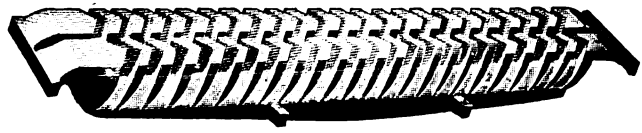

FIG. 1038

Hall Grate Bars.

Number.....	1	2	3	4
Size, Opening....inches	$\frac{9}{16}$	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{5}{16}$
Fuel to be Used..	Lump Coal.	Mixed Coal.	Tan Bark, Saw Dust, etc.	Pea Coal, Slack or Screenings.
Price...Per square foot	2.50	2.50	2.50	2.50

In ordering Half Grate Bars give length and width of fire-box, size of old bars and kind of fuel to be used. These bars are three inches in width on upper surface, made in any length and will fit ordinary bearing bars.

They prevent heavy smoke and by the air ports with free and unlimited ventilation makes cool bars, hot fires and steam. The webs are placed below the fire surface proper, being removed from the direct action of the fire, prevents overheating.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

GRATE BARS.

SHAKING GRATE BARS.

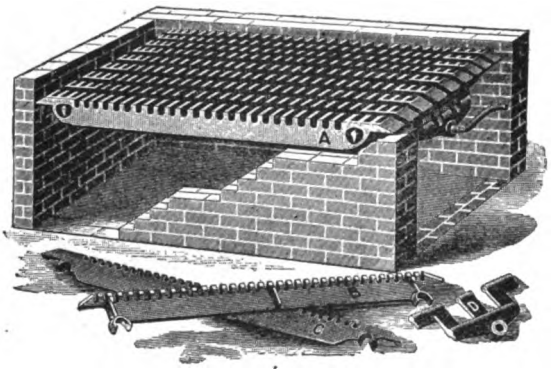

FIG. 1039.

The Shaking Grate is made up of two or more side bars, (depending on the width of surface), "A" which are stationary. In these side bars, at each end, are pockets for the reception of the Rocker Bars "D," which swing on pivot edges like a scale bearing, in said pockets. To the front Rocker Bar is attached the operating Levers, which are also attached to the Boiler Front. On the Rocker Bars rest the moving Grate Bars "C" and "B."

The movement of the Bars is both vertical and horizontal, each Bar moving in the opposite direction from the movement of the Bar next to it. This is done with very little effort on the part of the operator and thoroughly cleans the under-surface of the fire.

These Bars are very simple in construction and not liable to get out of order, have from 50 to 60% of air space and are very durable.

The advantages they possess over the stationary Grate is, that having a large air space they attain nearer perfect combustion, the fire can be kept clean without the constant poking and raking through the fire-doors which admits cold air to the furnace, which is detrimental to economy.

Prices on application.

Round Grates.

TWO PART.

FIG. 1040.

THREE PART.

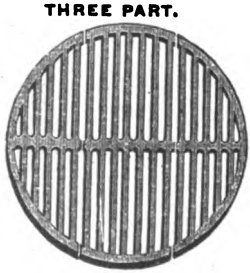

FIG 1041

Round grates can be furnished from 16 to 64 inches in diameter.

Prices on application.

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THE W. M. PATTISON SUPPLY CO. 395 CLEVELAND

SMOKE CONNECTIONS FOR BOILERS.

No. 1.

FOR TWO BOILERS.

FIG. 1042.

No. 2.

FOR TWO BOILERS.

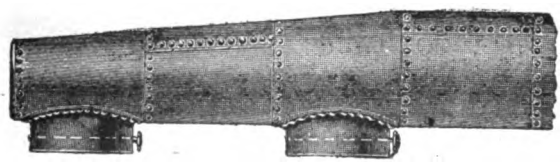

FIG. 1043.

No. 3.

FOR THREE OR MORE BOILERS.

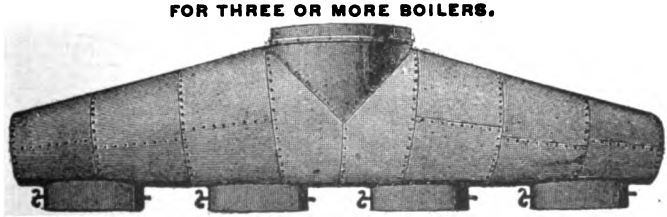

FIG. 1044.

Smoke connections as regularly furnished will be made of No. 14 steel for 48 and 54-inch boilers and of No. 12 steel for larger boilers.

No. 2 smoke connections as regularly furnished will be long enough to carry the outlet end two feet beyond brick walls of boiler.

Prices on application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM ENGINES AND BOILERS.

SIDE CRANK VERTICAL ENGINE WITH BOILER.

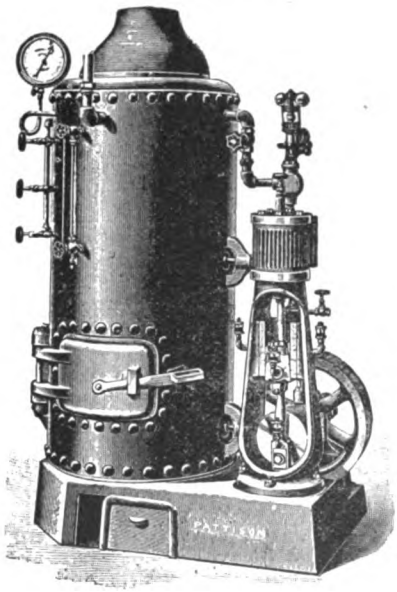

FIG. 1045.

CENTER CRANK VERTICAL ENGINE WITH BOILER.

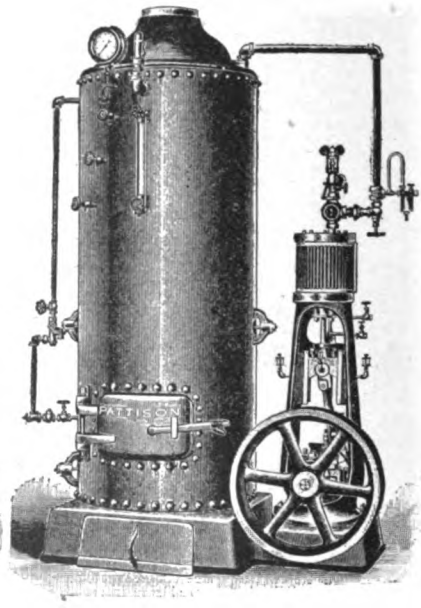

FIG. 1046.

Side Crank Vertical Engines with Boilers.

Horse Power of Engines.	Price of Outfit Complete, Each.	Cylinder, Inches.	Size of Boiler, Inches.	Number of 2-inch Tubes.	Height from Floor to Top of Boiler, Inches.	Floor Space Required, Inches.	Weight, Pounds.
1½	160.00	3x3	20x36	16	44	22x33	650
3	260.00	4x4	24x48	24	56	27x40	1600
5	310.00	5x5	27x60	30	81	31x43	2100
7	410.00	6x6	30x72	42	82	36x55	2900
10	550.00	7x7	36x72	60	82	42x66	3600

Center Crank Vertical Engines with Boilers.

Horse Power of Engines.	Price of Outfit Complete, Each.	Cylinder, Inches.	Size of Boiler, Inches.	Number of 2-inch Tubes.	Height from Floor to Top of Boiler, Inches.	Floor Space Required, Inches.	Weight, Pounds.
5	310.00	5x5	24x72	24	80	28x44	1950
7	410.00	6x6	30x72	42	82	33x50	2700
10	510.00	7x7	30x84	42	94	33x60	3350
14	660.00	8x8	36x84	60	95	38x72	4300

For Further Dimensions of Engines, see pages 397.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM ENGINES.

SIDE CRANK, VERTICAL.

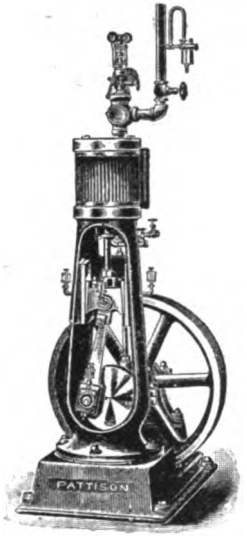

FIG. 1047.

CENTER CRANK, VERTICAL.

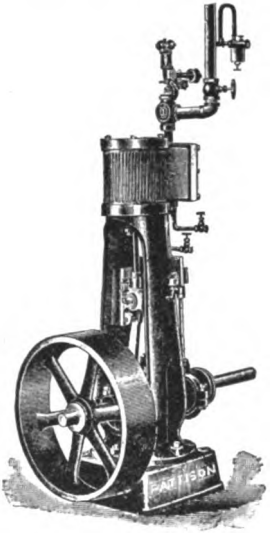

FIG. 1048.

Side Crank Vertical Engines.

Horse Power.	Price Complete, Each.	Cylinder, Inches.	Steam Pipe, Inches.	Exhaust Pipe, Inches.	Diameter Shaft, Inches.	Fly Wheel. Diameter, Inches.	Fly Wheel. Face, Inches.	Revolutions Per Minute.	Height from floor to center of Shaft, Inches.	Height to top of Cylinder, Inches.	Floor Space Required, Inches.	Weight, Pounds.
1½	87.00	3 x 3	½	¾	1 3/16	12	3	300	9	30	13 x 23	225
3	131 00	4 x 4	¾	1	1 7/16	16	4	250	10	36	15 x 28	350
5	163.00	5 x 5	¾	1	1 15/16	20	5	250	12	43	18 x 36	600
7	202.00	6 x 6	1	1¼	1 15/16	24	6	200	14	53	22 x 40	900
10	272.00	7 x 7	1¼	1½	2 7/16	32	7	190	18	61	25 x 46	1300
14	356.00	8 x 8	1½	2	2 7/16	36	8	180	20	68	28 x 50	1800
20	444.00	9 x 9	2	2½	2 15/16	42	9	160	24	78	30 x 53	2400
25	570.00	10 x 10	2½	3	3 7/16	44	10	160	26	84	36 x 62	3200
35	750.00	12 x 12	3	3½	3 15/16	48	12	160	28	92	40 x 70	4400
60	1090.00	14 x 16	3½	4	5 7/16	54	16	140	33	113	41 x 85	7000

Center Crank Vertical Engines.

5	163.00	5 x 5	¾	1	1 1/16	20	5	250	12	43	15 x 15	425
7	202.00	6 x 6	1	1¼	1 7/16	24	6	200	14	54	18 x 18	700
10	272.00	7 x 7	1¼	1½	2 7/16	32	7	190	17½	61	24 x 24	1150
14	356.00	8 x 8	1½	2	2 7/16	36	8	180	20	68	27 x 27	1600
20	444 00	9 x 9	2	2½	2 15/16	42	9	160	24	76	30 x 30	2200

25, 35 and 60 Horse Power Engines are for heavy duty.

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STEAM ENGINES.

MARINE; SINGLE VERTICAL.

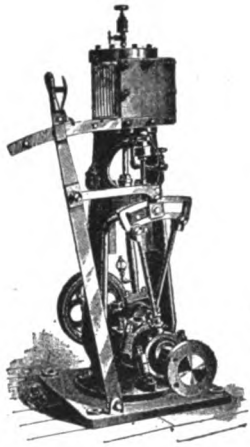

FIG. 1049.

MARINE; DOUBLE VERTICAL.

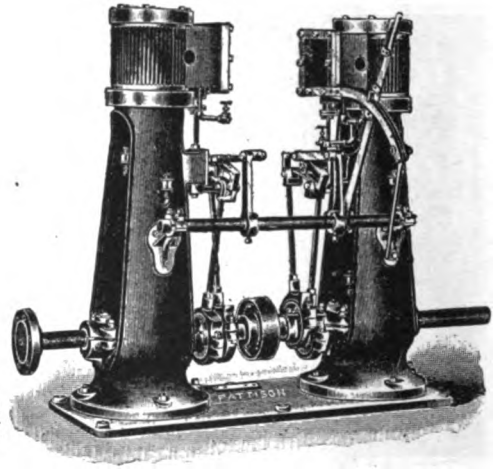

FIG. 1050.

Marine Single Vertical Engines.

Horse Power.	Price Complete, Each.	Size Cylinder, Inches.	Diameter Shaft, Inches.	Height from Floor to Center of Shaft, Inches.	Height to Top of Cylinder, Inches.	Floor Space Required, Inches.	Weight, Pounds.
5	195.00	5x 5	$1\frac{1}{16}$	8	39	18x18	260
7	245.00	6x 6	$1\frac{1}{16}$	9	47	25x25	500
10	300.00	7x 7	$2\frac{1}{8}$	$11\frac{1}{2}$	55	28x28	700
14	375.00	8x 8	$2\frac{3}{16}$	$12\frac{1}{2}$	60	30x30	1100
20	475.00	9x 9	$2\frac{5}{16}$	16	66	30x30	1400
25	625.00	10x10	$3\frac{1}{4}$	$14\frac{1}{2}$	73	36x36	1800
35	800.00	12x12	$3\frac{3}{4}$	15	79	42x42	2400
60	1150.00	14x16	$5\frac{3}{4}$	16	97	48x48	3800

Marine Double Vertical Engines.

10	400.00	5x 5	$1\frac{1}{16}$	8	39	15x 40	525
14	500.00	6x 6	$1\frac{1}{16}$	9	47	17x 48	1000
20	620.00	7x 7	$2\frac{1}{8}$	$11\frac{1}{2}$	55	22x 60	1400
28	780.00	8x 8	$2\frac{3}{16}$	$12\frac{1}{2}$	60	24x 63	2200
40	1000.00	9x 9	$2\frac{5}{16}$	16	66	26x 70	2800
50	1300.00	10x10	$3\frac{1}{4}$	$14\frac{1}{2}$	73	29x 74	3800
70	1700.00	12x12	$3\frac{3}{4}$	15	79	34x 92	5100
120	2400.00	14x16	$5\frac{3}{4}$	16	97	42x116	8200

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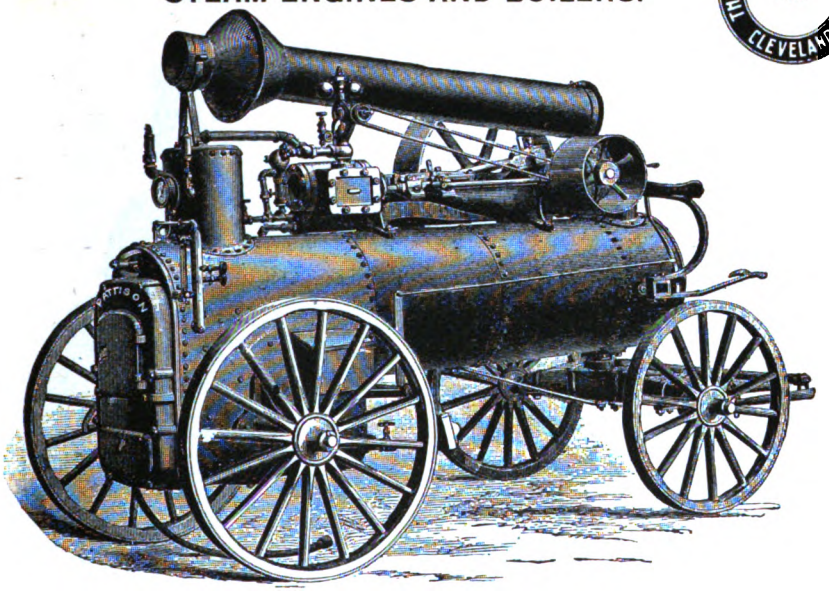

FIG. 1051

Number.	Horse Power.	Cylinder, Diamater and Stroke, Inches.	PULLEYS. Diameter, Inches.	PULLEYS. Face, Inches.	Revolutions, Per Minute.	Diameter of Boiler, Inches.	Length of Fire Box, Inches.	Width of Fire Box, Inches.	Height of Fire Box, Inches.	Number of 3 inch Tubes.	Length of Tubes, Inches.	Weight, Pounds.
0	6	4 x 6	14 and 26	6½ and 6½	260	26	34	21	29	17	54	4000
1	8	5 x 8	14 and 32	10½ and 8½	240	28	36	22	32	18	60	4500
2	9	6 x 9	16 and 36	10½ and 9½	200	28	36	22	32	18	60	4800
3	10	7 x 9	16 and 36	10½ and 9½	200	30	38	24	34	22	72	5500
4	12	7 x 10	20 and 44	10½	190	32	38	26	38	26	72	6200
5	15	8 x 10	20 and 44	10½	190	32	44	26	38	26	78	6500
6	20	8 x 12	22 and 48	10½ and 12½	190	34	52	28	38	30	90	8500
7	25	9 x 12	32 and 48	8½ and 12½	190	36	52	30	40	34	96	10000
8	30	10 x 12	32 and 54	8½ and 12½	190	36	52	30	40	34	102	10700
9	35	10 x 15	36 and 60	9½ and 12½	160	40	52	34	44	40	102	12400
10	40	11 x 15	36 and 60	9½ and 12½	160	40	60	34	44	42	120	13800

Prices on application.

Each outfit includes center crank engine, pulleys, governor, throttle, pump, heater, governor belt, oil cups and pet cocks; boiler mounted on wheels, smoke stack, grates, safety valve, steam gauge, water gauge with water column, gauge cocks, whistle, blow-off, check and stop valves, brake, hand suction pump, tool box, driver's seat, tongue, neck yoke, double and whiffle trees.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

Semi-Portable Engine and Boiler.

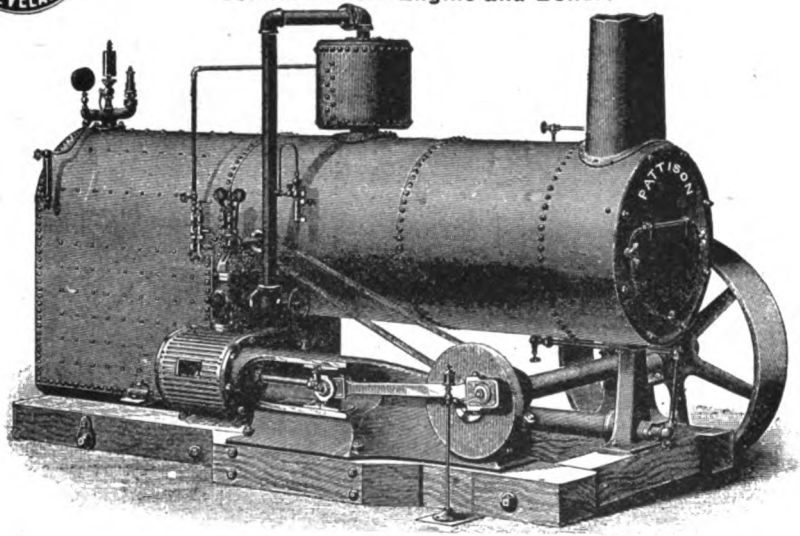

FIG 1052.

Number.	Horse Power.	Cylinder, Diameter and Stroke, Inches.	Band Wheel.		Revolutions per Minute.	Diameter of Boiler, Inches.	Length of Fire Box. Inches.	Width of Fire Box, Inches.	Height of Fire Box Above Grates, Inches.	Number and Diameter of Tubes.	Length of Tubes, Inches.	Weight, Pounds.
			Diameter, Inches.	Face, Inches.								
330	15	7x10	40	8½	240	30	42	25	21	32–2¼	72	5700
331	20	8x10	44	10½	240	33	44	28	26	41–2¼	84	7200
332	25	9x12	48	12½	220	36	48	31	28	54–2¼	84	9200
333	30	10x12	54	12½	220	36	54	31	31	43–2½	108	10600
334	35	10x14	60	14½	200	40	54	35	33	53–2½	108	11700
335	40	11x14	66	14½	200	42	54	37	35	61–2½	108	12800
336	50	12x16	72	16½	180	44	60	39	37	77–2½	108	15500

Engine complete as shown.

Firebox boiler mounted on skids by cast-iron supports, cast-iron fire and ash doors, cast-iron smokehead and smokehead door, and cast-iron stack saddle, dome, grates, grate bearing bar, safety valve (pop valve used on the four smallest sizes) steam gauge and siphon, glass water gauge, gauge cocks, whistle, blow-off cock, check valve, stop valve, and smoke stack with guys.

Injector, with pipes and valves for connecting to boiler.

Heater, for heating the feed water as it passes from the injector into the boiler.

Steam pipe to connect engine and boiler and connections for leading the exhaust from the engine to the stack.

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STEAM ENGINES.

Detached Center Crank Engine.

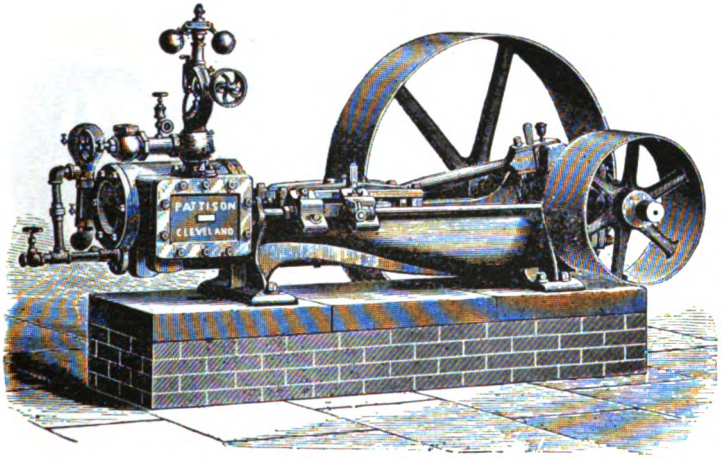

FIG. 1053.

Horse Power.	Cylinder, Inches.	Diameter of Pulleys, Inches.	Face of Pulleys, Inches.	Governor, Inches.	Revolutions, Per Minute.	Weight, Pounds.
6	4 x 6	14 and 26	6½	1	260	650
8	5 x 8	14 and 32	10½ and 8½	1¼	240	900
9	6 x 9	16 and 36	10½ and 9½	1¼	200	1200
10	7 x 9	16 and 36	10½ and 9½	1½	200	1300
12	7 x 10	20 and 44	10½	1½	190	1600
15	8 x 10	20 and 44	10½	2	190	1700
20	8 x 12	22 and 48	10½ and 12½	2	190	2400

Prices on application.

The fixtures with each engine are governor, throttle, pulleys, pump, heater, oil cups, cylinder and pet cocks.

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STEAM ENGINES.

Horizontal Center Crank Engine.

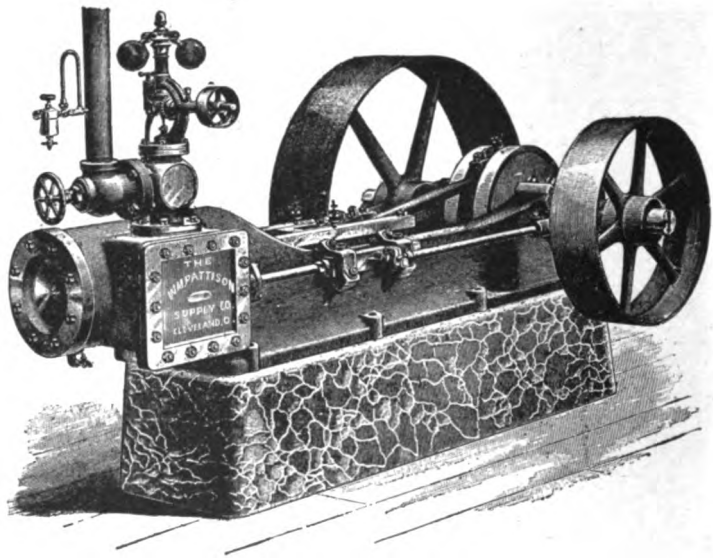

FIG. 1054.

Horse Power.	Cylinder, Inches.	Diameter of Pulleys, Inches.	Face of Pulleys, Inches.	Governor, Inches.	Revolutions per Minute.	Weight, Pounds.
8	5x 8	14 and 32	7½ and 8½	1¼	300	1000
12	6x 8	16 and 36	7½ and 9½	1½	300	1200
15	7x10	20 and 44	8½ and 9½	2	275	1700
20	8x10	20 and 44	8½ and 10½	2¼	275	2000
30	9x12	32 and 48	8½ and 12½	2½	250	3000
40	10x12	32 and 54	8½ and 12½	3	250	3300
45	10x15	36 and 60	9½ and 12½	3	200	4300
50	11x15	36 and 60	9½ and 12½	3½	200	4900
55	12x15	36 and 60	9½ and 14½	3½	200	5300
60	12x16	36 and 60	9½ and 14½	3½	190	5500
70	13x16	36 and 72	9½ and 14½	4	180	7000
80	14x16	36 and 72	9½ and 16½	4	180	7800
100	15x16	36 and 72	12½ and 16½	4	175	9000
125	16x18	48 and 78	12½ and 16½	4½	165	11000

Prices on application.

The governor, throttle, pulleys, lubricator, oil cups and cylinder cocks are considered parts of the engine and are included in the regular price.

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STEAM ENGINES.

Horizontal Center Crank Engine

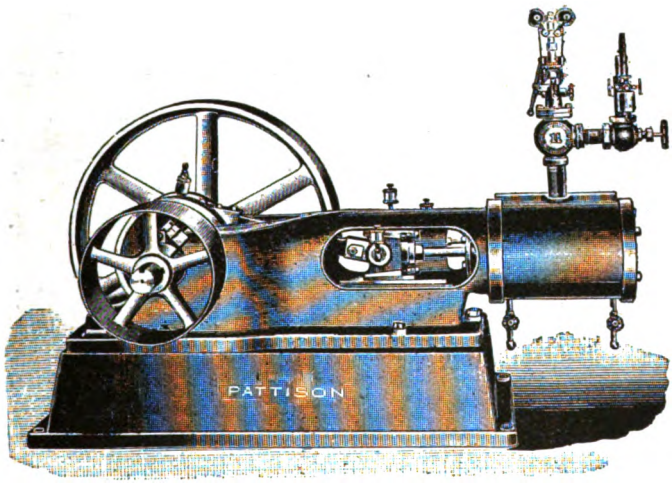

FIG. 1055.

Horse Power.	Price Complete, Each.	Price of Foundation Bolts and Washers, Per Set.	Cylinder, Inches.	Steam Pipe, Inches.	Exhaust Pipe, Inches	Diameter of Shaft, Inches.	Fly Wheel, Inches.	Diameter and Face of Pulley, Inches.	Revolutions, Per Minute.	Length over all, Inches.	Width Across Crank, Inches.	Weight Less Sub-Base, Pounds.	Weight with Sub-Base, Pounds.
8	260.00	5.00	6x8	$1\frac{1}{4}$	$1\frac{1}{2}$	$2\frac{5}{8}$	32x6	14x7	225	68	38	1100	1400
10	300.00	6.00	7x9	$1\frac{1}{2}$	2	$2\frac{13}{16}$	36x7	16x7$\frac{1}{2}$	210	74	44	1500	1900
15	360.00	7.00	8x10	2	$2\frac{1}{2}$	$2\frac{15}{16}$	40x8	18x8	190	86	50	2000	2500
20	430.00	8.00	9x11	2	$2\frac{1}{2}$	$3\frac{1}{4}$	44x9	20x10	180	88$\frac{1}{2}$	54	2700	3300
25	500.00	9.00	10x12	$2\frac{1}{2}$	3	$3\frac{3}{4}$	48x10	24x12	160	99$\frac{1}{2}$	60	3400	4100

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STEAM ENGINES.

Self Contained Throttling Engine.

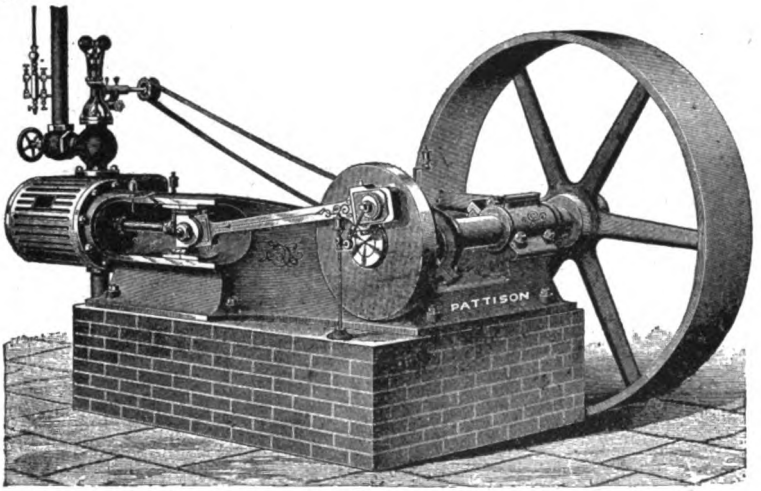

FIG. 1056.

Horse Power.	Cylinder, Inches.	Steam Pipe, Inches.	Exhaust Pipe, Inches.	Diameter of Main Shaft, Inches.	Length of Main Shaft, Inches.	Diameter of Band Wheel, Inches.	Face of Band Wheel, Inches.	Revolutions per Minute.	Length, Feet and Inches.	Width, Feet and Inches.	Weight, Pounds.
15	7x10	2	2½	3 15/16	44	40	8½	240	6– 7	4– 5	1600
20	8x10	2	3	3 15/16	44	44	10½	240	6– 9	4– 5	1750
25	9x12	2½	3	4 15/16	54	48	12½	220	7–10	5– 4	2950
30	10x12	2½	3½	4 15/16	54	54	12½	220	8– 1	5– 4	3200
35	10x14	3	3½	4 15/16	60	60	14½	200	9– 4	5–10	3800
40	11x14	3	4	4 15/16	60	66	14½	200	9– 7	5–10	4000
50	12x16	3½	4	5 15/16	66	72	16½	180	10– 8	6– 5	5400
60	13x16	3½	4½	5 15/16	66	78	16½	180	10–11	6– 5	5700
80	14x18	4	5	6 15/16	76	84	18½	160	12– 3	7– 4	7800
100	16x20	4½	6	7 15/16	88	90	20½	140	13– 8	8– 4	11000
125	18x22	5	6	8 15/16	102	96	24½	120	14–10	9–10	14500

Prices on application.

The horse-power given is at speeds named and 80 pounds steam pressure.

The fixtures included with each engine are: Band wheel, governor, throttle valve, sight-feed cylinder lubricator and connections, oil cups, drain cocks, spanner wrench, governor belt, ball and stand oiler for wrist, wipe oiler for crosshead, and drip oiler for eccentric.

This type of engine is furnished either right or left hand.

All standard engines are made self-contained, with the exception of the 18x22 size, which is made with detached outboard bearing for convenience in shipping and handling. See illustration, Page 405.

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STEAM ENGINES.

Throttling Engine with Detached Outboard Bearing.

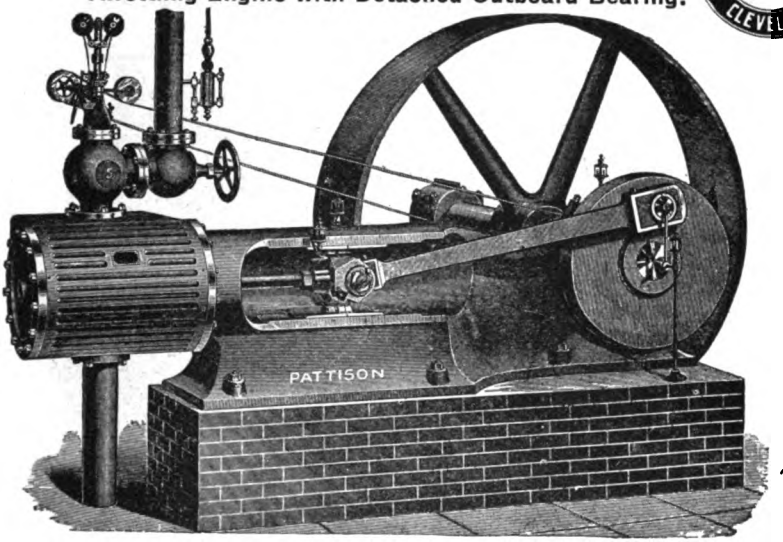

FIG. 1057.

For Specifications, see page 404.

Table of Horse Power for Different Speeds and Pressure of Steam.

THE POWERS OF DOUBLE ENGINES ARE DOUBLE THESE AMOUNTS.

SEE ENGINES ON PAGE 406.

Size of Engine Cylinder.....in.	7 x 10			8 x 10			9 x 12			10 x 12		
Revolutions per Minute	220	240	260	220	240	260	200	220	240	200	220	240
Horse Power with 80 lbs. steam	14	15	16	18	20	22	23	25	27	27	30	33
Horse Power with 90 lbs. steam	16	17	18	20	22	24	26	28	30	31	34	37
Horse Power with 100 lbs. steam	18	19	20	22	24	26	29	31	33	35	38	41

Size of Engine Cylinder.....in.	10 x 14			11 x 14			12 x 16			13 x 16		
Revolutions per Minute	180	200	220	180	200	220	160	180	200	160	180	200
Horse Power with 80 lbs. steam	32	35	38	36	40	44	44	50	56	53	60	67
Horse Power with 90 lbs. steam	35	39	43	41	45	49	50	56	62	59	67	75
Horse Power with 100 lbs. steam	38	43	48	46	50	54	56	62	68	65	74	83

Size of Engine Cylinder.....in.	14 x 18				16 x 20				18 x 22			
Revolutions per Minute	140	160	180	200	120	140	160	180	100	120	140	160
Horse Power with 80 lbs. steam	70	80	90	100	85	100	115	130	104	125	146	167
Horse Power with 90 lbs. steam	80	90	100	110	96	113	129	145	117	140	164	188
Horse Power with 100 lbs. steam	90	100	110	120	107	125	143	160	130	155	182	209

The above table shows the changes in power that may be obtained by a change in steam pressure or speed. The port area of the engines are such that the piston speed can be increased up to 600 feet without prejudice to their satisfactory running.

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STEAM ENGINES.

Double Engine with Reversing Valve Gear.

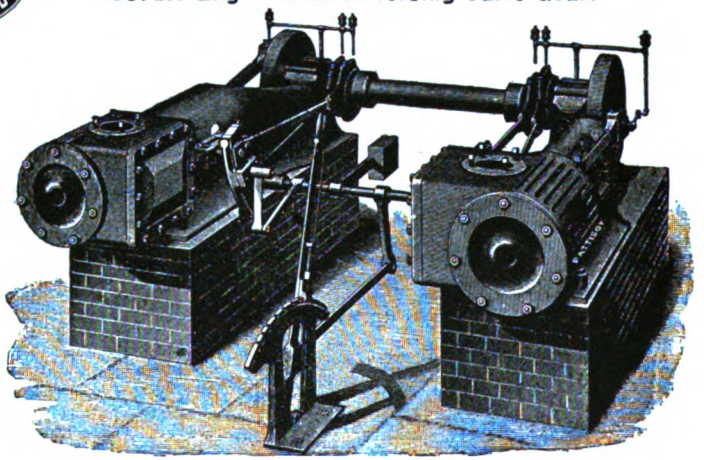

FIG. 1058.

Horse Power.	Cylinder, Inches	Steam Pipe, Inches.	Exhaust Pipe, Inches.	Diameter of Main Shaft, Inches.	Length of Main Shaft, Inches.	Length Between Eccentrics, Inches.	Diameter of Band Wheel, Inches.	Face of Band Wheel, Inches.	Revolutions per Minute.	Length in Feet and Inches.	Width in Feet and Inches.	Weight, Pounds.
30	7x10	2½	3	3⅜	59	33	40	14½	240	6– 7	6– 4	2700
40	8x10	2½	3	3⅜	59	33	44	16½	240	6– 9	6– 4	3000
50	9x12	3	3½	4⅜	69	37	48	18½	220	7–10	7– 4	4900
60	10x12	3½	3½	4⅜	69	37	54	18½	220	8– 1	7– 4	5400
70	10x14	3½	4½	4⅞	75	40	60	20½	200	9– 4	8– 0	6200
80	11x14	4	4½	4⅞	75	40	66	20½	200	9– 7	8– 0	6600
100	12x16	4	5	5⅜	81	43	72	23	180	10– 8	8– 7	8700
120	13x16	4½	5	5⅜	81	43	78	23	180	10–11	8– 7	9000
160	14x18	5	6	6⅜	91	48	84	27	160	12– 3	9– 6	12600
200	16x20	6	7	7⅜	103	53½	90	29	140	13– 8	10–10	18000
250	18x22	7	7	8⅜	117	59½	96	31	120	14–10	12– 1	23000

Prices on application.

The fixtures included with each double engine are: Band wheel made in halves, governor, main throttle valve for governor, cross steam pipes to connect each cylinder, separate stop valve over each cylinder, sight feed cylinder lubricator and connections, ball and stand oilers for wrists, wipe oilers for crossheads, drip oilers for eccentrics, oil cups, drain cocks, spanner wrench and governor belt.

Governors having automatic stops are supplied on all double engines of 80-horse power and larger. A narrow rimmed fly wheel, made in halves, may be substituted for band wheel without extra cost. In such case, the belt pulleys, if wanted, will be charged for extra.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM ENGINES.

Automatic High Speed Engine.

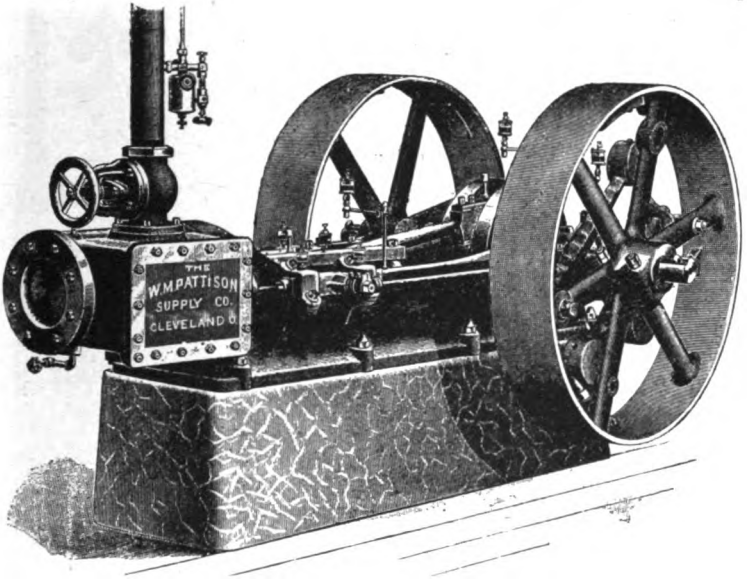

FIG. 1059.

Horse Power at 35 Pounds M. E. P. and ¼ cut off.	Cylinder, Inches.	Steam Pipe, Inches.	Exhaust Pipe, Inches.	Diameter of Pulleys, Inches.	Face of Pulleys, Inches.	Revolutions per Minute.	Weight, Pounds.
10	5x 8	1½	2	36	5½	375	1300
15	6x 8	1½	2	36	6½	375	1600
20	7x10	2½	3	42	7½	325	2300
25	8x10	2½	3	42	8½	325	2500
40	9x12	3	3½	48	8½	300	3900
50	10x12	3½	4	48	10½	300	4300
60	10x15	3½	4	54	10½	260	5200
70	11x15	4	4½	54	10½	250	5800
75	12x15	4	4½	54	12½	250	6700
80	12x16	4	4½	60	12½	240	8400
90	13x16	4½	5	60	12½	230	9200
100	14x16	4½	5	60	14½	225	10200
110	15x16	5	6	60	16½	220	11600
130	16x18	6	7	72	16½	200	14300

Prices on application.

Each engine is furnished with throttle, lubricator, pulleys, oil cups and automatic oil device for crank pins, cross head and eccentric.

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STEAM ENGINES.

Center Crank Engine.

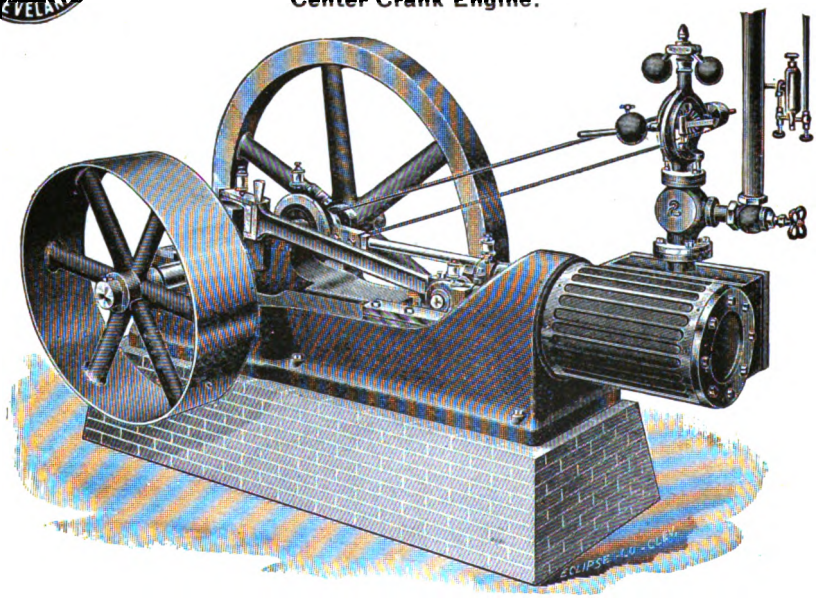

FIG. 1060.

Horse Power.	Cylinder, Inches.	Steam Pipe, Inches.	Exhaust Pipe, Inches.	Diameter of Crank Shaft, Inches.	Diameter and Face of Band Wheel, Inches.	Diameter and Face of Drive Pulley, Inches.	Diameter of Square Rim Fly Wheel, Inches.	Revolutions per Minute.	Floor Space Required, Inches.	Weight, Pounds
9	6x 9	1¼	2	2 11/16	36x 6	20x 8	... ...	175	74x41	1300
12	7x 9	1½	2	2 11/16	42x 6	24x 8	... ...	175	77x41	1600
18	8x13	2	2½	3 1/16	....	30x10	60	175	109x55	3100
25	9x13	2	3	3 1/16	.....	36x10	60	175	109x55	3600
30	10x13	2	3	3 1/16	.....	36x12	60	175	109x55	3900
40	11x14	2½	3½	4 7/16	54x14	36x12	... ...	175	115x74	5500
50	12x14	3	4	4 7/16	54x14	36x14	... ...	175	115x74	5800

The Fly-Wheel and Drive Pulley can be used on either side of engine. When so desired we will furnish a 54-inch diameter Band Pulley in place of Square Rim Fly-Wheel without extra charge. There are included with above engine the following: Fly-Wheel, Drive Pulley, Automatic Stop Motion Governor, Governor Belt, Throttle Valve, Oil Can, Oil Cups, Sight-Feed Cylinder Lubricator with connections, Wrench and Foundation Plans.

Steam, Water and Exhaust Connections and Foundation Bolts are Extra, and an additional charge will be made for them.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM ENGINES.

Side Crank Engine.

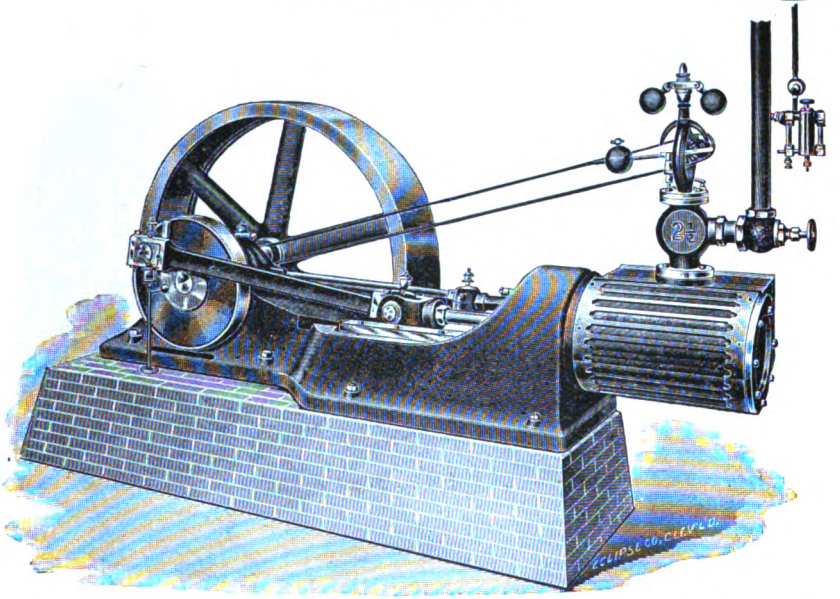

FIG. 1061.

Horse Power.	Cylinder, Inches.	Steam Pipe, Inches.	Exhaust Pipe, Inches.	Diameter of Main Shaft, Inches.	Length of Shaft from Center of Engine, Feet and Inches.	Diameter and Face of Band Wheel, Inches.	Revolutions per Minute.	Length of Engine Including Band Wheel, Feet and Inches.	Weight, Pounds.
18	8x13	2	2½	3 7/16	5–0	54x10	175	8–10	2900
25	9x13	2	3	3 7/16	5–0	54x12	175	8–10	3250
30	10x13	2	3	3 7/16	5–0	54x12	175	8–10	3500
35	10x16	2½	3½	4 7/16	6–0	60x12	165	10– 6	4300
45	11x16	2½	3½	4 7/16	6–0	60x14	165	10– 6	5000
50	12x16	3	4	4 7/16	6–0	60x14	165	10– 6	5300
55	12x18	3	4	5 7/16	7–0	72x16	160	11– 9	7500
65	13x18	3½	4½	5 7/16	7–0	72x18	160	11– 9	8000
80	14x18	4	4½	5 7/16	7–0	84x18	160	12– 3	8500
110	16x20	4	4½	7 1/16	8–2½	96x22	150	14– 6	14000
150	18x20	4½	5	7½	8–2½	96x24	150	14– 6	15600

We furnish with each Engine the following: Out Board Pillow Block and Adjustable Sole Plate, Band Wheel, Automatic Stop Motion Governor, Governor Belt, Throttle Valve, Oil Can, Oil Cups, Centrifugal Ball Oiler for Crank Pin, Sight-Feed Cylinder Lubricator, Wrench and Foundation Plans.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM ENGINES.

Automatic Center Crank Engine.

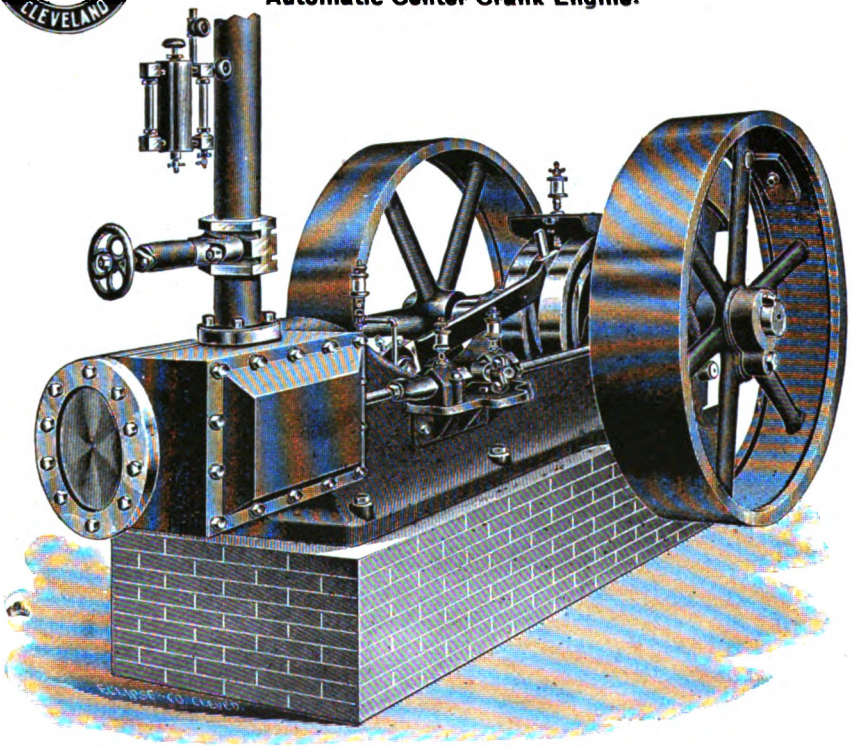

FIG. 1062

Horse Power at 40 Pounds M. E. P. and ¼ cut off.	Cylinder, Inches.	Steam Pipe, Inches.	Exhaust Pipe, Inches.	Diameter of Crank Shaft, Inches.	Diameter and Face of Band Wheels, Inches.	Revolutions per Minute.	Floor Space Required, Inches.	Weight, Pounds.
35	8x13	2½	3	3 15/16	54x10	275	106x55	3450
45	9x13	3	3½	3 15/16	54x10	275	106x55	3900
50	10x13	3	3½	3 15/16	54x10	250	106x55	4200
65	11x14	3½	4	4 7/16	54x12	250	115x74	6100
80	12x14	4	4½	4 7/16	54x12	250	115x74	6600

The above table gives a range of Horse Power and Revolutions covering the usual requirements.

We furnish with each engine the following: Two Band Wheels, Shaft Governor, Special Throttle Valve, Oil Can, Wipe Oilers for Crosshead Pin, Drip Oiler for Eccentric and Crank Pin, Sight-Feed Cylinder Lubricator with connections, Special Oilers for Valve Crosshead and Main Bearings.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM ENGINES.

Automatic Side Crank Engine.

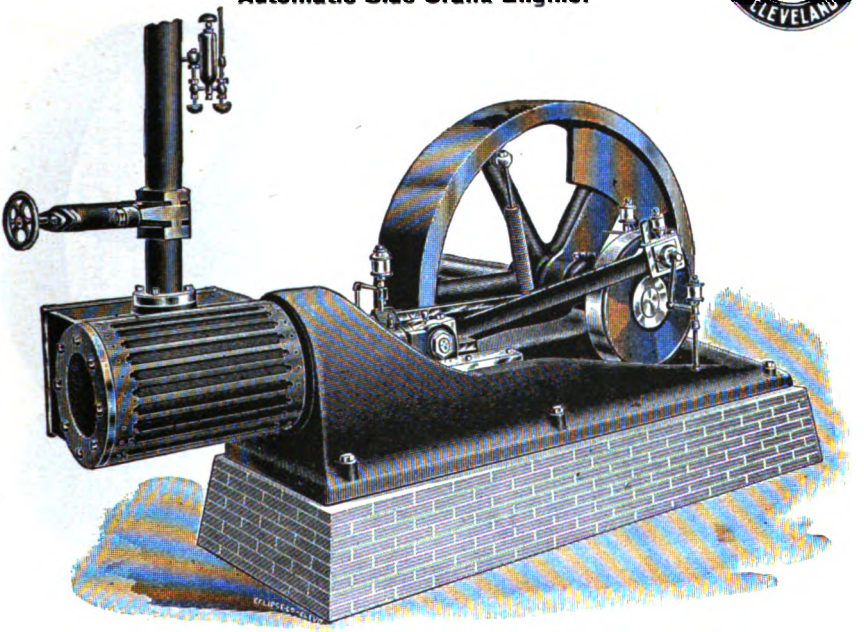

FIG. 1063.

Horse Power at 40 Pounds M. E. P. and ¼ cut off.	Cylinder, Inches.	Steam Pipe, Inches.	Exhaust Pipe, Inches.	Diameter of Main Shaft, Inches.	Length of Main Shaft from Center of Engine, Feet.	Diameter and Face of Band Wheel, Inches.	Revolutions Per Minute.	Length Over all Including Band Wheel, Feet and Inches.	Weight, Pounds.
30	8x13	2½	3	3 5/16	5	54x10	225	8–10	3250
40	9x13	3	3½	3 5/16	5	54x10	225	8–10	3450
50	10x16	3½	3½	4 7/16	6	60x14	200	10–6	5000
60	11x16	3½	4	4 7/16	6	60x14	200	10–6	5500
70	12x16	3½	4	4 7/16	6	60x14	200	10–6	5800
75	12x18	4	4½	5	7	60x16	185	11–3	8400
90	13x18	4	4½	5	7	60x16	185	11–3	8800
105	14x18	4½	5	5	7	72x18	185	11–9	9000
145	16x20	4½	5	7½	8½	84x22	180	14–0	15100
185	18x20	5	6	7½	8½	84x24	180	14–0	17000

We furnish with each engine the following: Pillow Block with Adjustable Sole Plate, Band Wheel with Shaft Governor, Special Throttle Valve, Oil Can, Wipe Oiler for Crosshead Pin, Drip Oiler for Eccentric, Centrifugal Ball Oiler for Crank Pin, Sight-Feed Cylinder Lubricator with connections, Special Oilers for Valve Crosshead and Main Bearing, and Foundation Plans.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM ENGINES.

Self Contained Automatic Cut-off Engine.

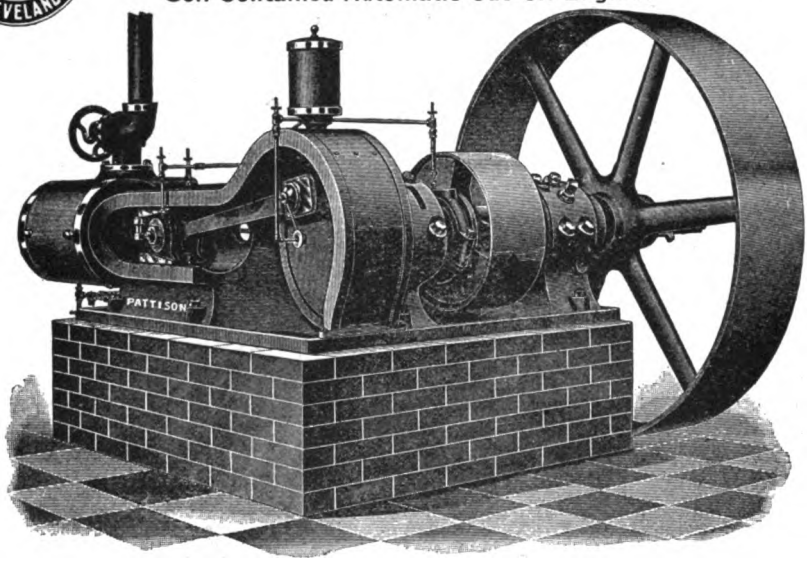

FIG. 1064

Detached Pattern Automatic Cut-off Engine.

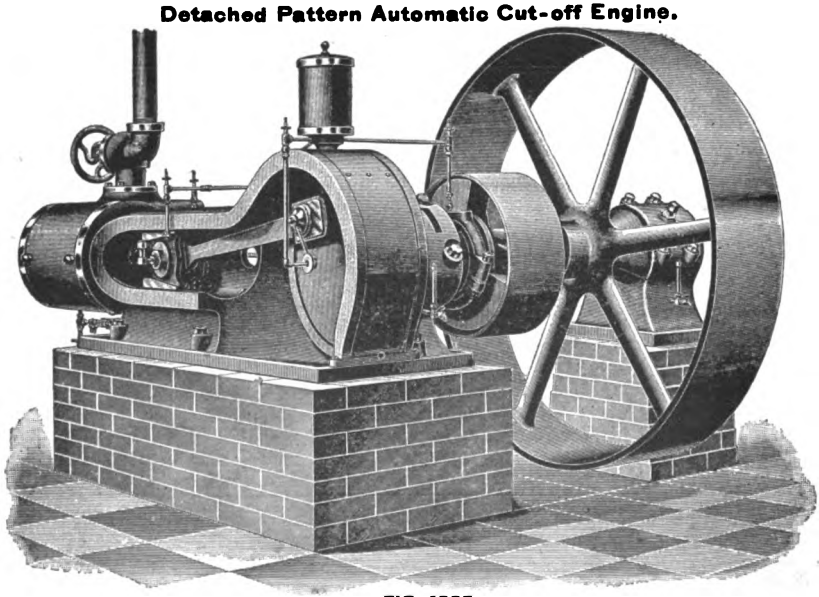

FIG. 1065.

For Specifications, see page 413.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM ENGINES.

Standard Automatic Cut-off Engines.

Horse Power at 80 Pounds Initial Pressure.	Horse Power at 100 Pounds Initial Pressure.	Horse Power at 125 Pounds Initial Pressure.	Cylinder, Inches.	Steam Pipe, Inches.	Exhaust Pipe, Inches.	Diameter of Shaft, Inches.	Available Length of Shaft Outside of bearing on Self-Contained Engine, Inches.	Space on Shaft Between Governor Wheel and Outside Bearing: Detached Engine, Inches.	Diameter of Band Wheel, Inches.	Face of Band Wheel, Inches.	Diam. of Governor Wheel, Inches.	Width of Governor Wheel, Inches.	Revolutions Per Minute,	Height from Bottom of Engine bed to Center of Cylinder, Inches.	Length over All, Inches.	Width over All, Inches.	Weight, Pounds.
15	18	21	6x8	2	2½	2⅞	13	11¾	44	7½	16	8¼	325	9½	73	55	2000
20	23	26	7x8	2½	3	2⅞	13	11¾	44	8½	16	8¼	325	9½	73	55	2100
30	35	40	8x10	3	3½	3⅜	15½	15½	48	9½	18	9¼	300	11	86	65	3200
40	45	50	9x10	3	3½	3⅜	15½	15½	49	10½	18	9¼	300	11	86	65	3400
50	60	70	10x12	3½	4	4⅜	21½	22½	60	12½	21	9	275	13	104	79	4700
60	70	80	11x12	3½	4	4⅜	21½	22½	60	13½	21	9	275	13	104	79	5000
75	90	105	12x14	4	5	5⅜	20½	21	67	14½	24	10¼	250	15	120	86	7200
90	105	120	13x14	4	5	5⅜	20½	21	67	15½	24	10¼	250	15	120	86	7600
110	130	150	14x16	4½	6	6⅜	22	22½	74	17	27	10¼	225	17	135	97	11000
125	145	165	15x16	5	6	6⅜	22	22½	74	19	27	10¼	225	17	135	97	11500
150	185	220	17x18	6	7	7¾	.....	27½	82	21	48	11½	200	19	157	109	17400
180	215	250	18x18	6	7	7¾	.....	27½	82	23	48	11½	200	19	157	109	18000

Prices on application.

All engines of this type are left-hand side crank engines.

All sizes of engines up to and including the 15x16 size are regularly made self contained.

The 17x18 and larger engines are only made in the detached style. The fixtures included with each engine are: Rites Inertia Governor, Band Fly Wheel, Elbow Throttle Valve, Nickel Plated Double Glass Sight-Feed Cylinder Lubricator and connections, Cylinder Drain Cocks with pipe connections to exhaust pipe, Valve for draining steam chest and pipe connection to exhaust pipe, Special Wrenches, Foundation Bolts and Plates, Cast Iron Oil Guard for crank wheel, Oil Gauges for the self-oiling main shaft journals, Oil Cocks for oil catcher around engine bed, and the Complete Tank Oiling System as described for oiling the engine, including the Centrifugal Oiler for main wrist pin and Wipe Oiler for the crosshead.

On special finished engines a cast iron oil guard is furnished for the eccentric.

Foundation Plans and full directions for setting up and operating accompany each outfit.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM ENGINES.

Automatic Cut-off Engines, Mounted on Sub Bases.

FRONT VIEW.

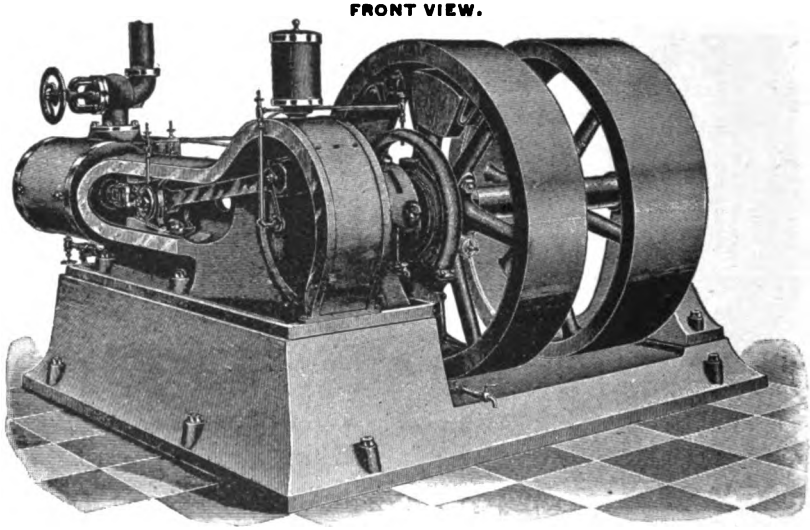

FIG. 1066.

BACK VIEW.

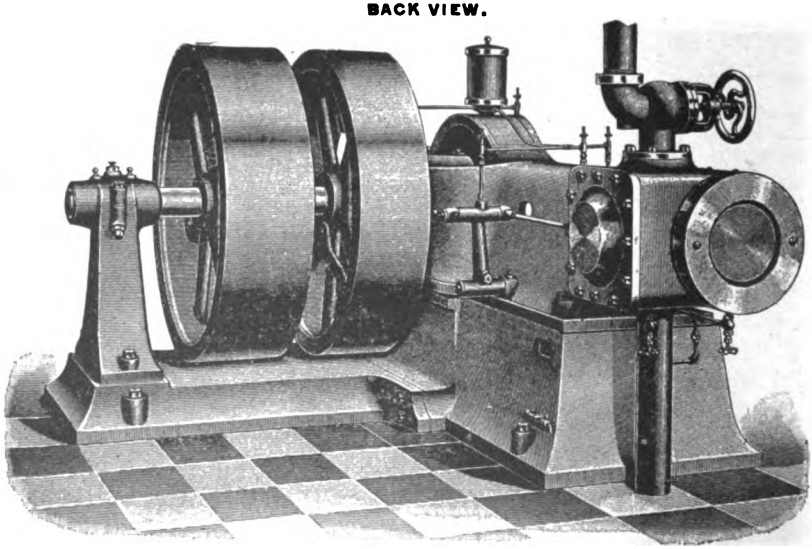

FIG. 1067.

For Specifications, see page 415.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM ENGINES.

Automatic Cut-off Engines, Mounted on Sub Bases.

Horse Power at 80 Pounds Initial Pressure.	Horse Power at 100 Pounds Initial Pressure.	Horse Power at 125 Pounds Initial Pressure.	Cylinder, Inches.	Steam Pipe, Inches.	Exhaust Pipe, Inches.	Diameter of Shaft, Inches.	Available Space on Shaft between Governor Wheel and Outer Bearing, Inches.	Diameter of Governor and Band Wheels, Inches.	Maximum Diameter of Wheels which can be Used, Inches.	Face of Band Wheel, Inches.	Face of Governor Wheel, Inches.	Revolutions per Minute.	Height from Bottom of Sub Base to Center of Cylinder, Inches.	Length Over All, Inches.	Width Over All, Inches.	Weight, Pounds.
15	18	21	6x 8	2	2½	2 7/8	16	36	38	7½	8	325	24½	70	62	3700
20	23	26	7x 8	2½	3	2 7/8	16	36	38	8½	8	325	24½	70	62	3800
30	35	40	8x10	3	3½	3 3/8	19	40	44	9½	10	300	27¾	82	71	5800
40	45	50	9x10	3	3½	3 3/8	19	40	44	10½	10	300	27¾	82	71	6000
50	60	70	10x12	3½	4	4 3/8	26	46	48	12½	11	275	30¾	99	84	8800
60	70	80	11x12	3½	4	4 3/8	26	46	48	13½	11	275	30¾	99	84	9100
75	90	105	12x14	4	5	5 3/8	25½	50	54	14½	11	250	35½	114	91½	12800
90	105	120	13x14	4	5	5 3/8	25½	50	54	15½	11	250	35½	114	91½	13200
110	130	150	14x16	4½	6	6 3/8	29½	62	68	17	11½	225	45¾	128	103	17800
125	145	165	15x16	5	6	6 3/8	29½	62	68	19	11½	225	45¾	128	103	18300

Prices on application.

All engines of this type are left-hand side crank engines, and have full finish.

The fixtures included with each engine are: Rites Inertia Governor, Band Fly Wheel, Elbow Throttle Valve, Nickel Plated Double Glass Sight-Feed Cylinder Lubricator and Connections, Cylinder Drain Cocks with pipe connections to exhaust pipe, Valve for draining steam chest with pipe connections to exhaust pipe, Special Wrenches, Foundation Bolts and Plates, Cast Iron Oil Guard for crank wheel, Cast Iron Oil Guard for eccentric, Oil Gauges for the self-oiling main shaft journals, Oil Cocks for oil reservoirs in sub-base, and the Complete Tank Oiling System as described for oiling the engine, including the Centrifugal Oiler for main wrist pin and Wipe Oiler for cross-head.

Foundation plans and full directions for setting up and operating accompany each outfit.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM ENGINES.

Inclosed Direct Connected Engines.

FRONT VIEW.

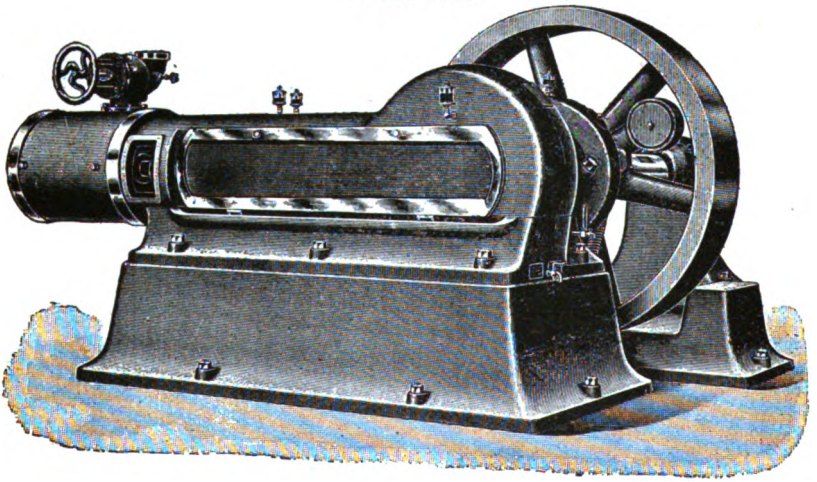

FIG. 1068.

BACK VIEW.

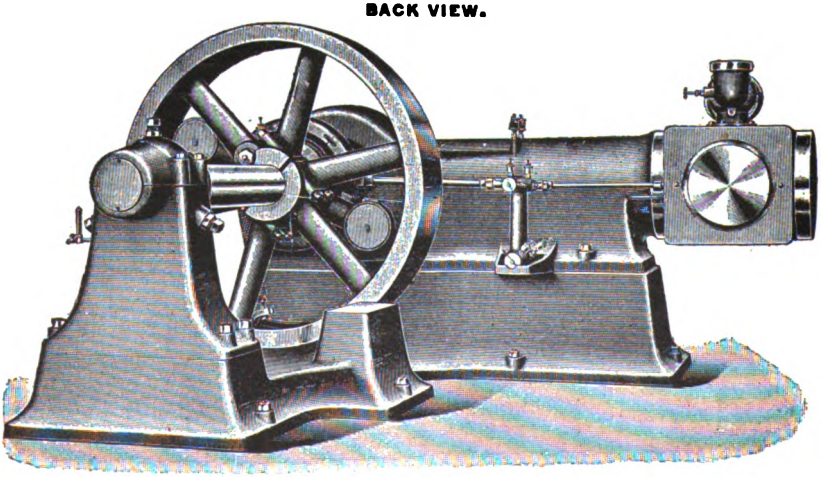

FIG. 1069.

For Specifications, see page 417.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

Inclosed Direct Connected Automatic Cut-Off Engines.

Horse Power.	Cylinder, 75 to 90 Pounds Pressure, Inches.	Cylinder, 90 to 115 Pounds Pressure, Inches.	Cylinder, 115 to 140 Pounds Pressure, Inches.	Steam Pipe, Inches.	Exhaust Pipe, Inches.	Diameter of Governor Wheel, Inches.	Medium Speed of Engine and Generator, Revolutions per Minute.	Kilo-Watt Capacity of Generator.	Diameter of Shaft, Inches.	Height from Bottom of Sub-Base to Center Line of Engine and Cylinder, Inches.	Length, Over All, Inches.	Width, Over All, Inches.	Weight, Pounds.
40	10 x 10	.....	.....	3	4	46	305	25	4 1/16	32	99	84	.....
40	.....	9 x 10	.....	3	4	46	305	25	4 1/16	32	99	84	8000
40	.....	.....	8 x 10	3	4	46	305	25	4 1/16	32	99	84	.....
55	11 x 11	.....	.....	3 1/2	4 1/2	51	300	35	5 1/16	33 3/4	114	92	.....
55	.....	10 x 11	.....	3 1/2	4 1/2	51	300	35	5 1/16	33 3/4	114	92	10000
55	.....	.....	9 x 11	3 1/2	4 1/2	51	300	35	5 1/16	33 3/4	114	92	.....
75	12 x 12	.....	.....	4	5	57	290	50	6 1/16	35 1/2	110	105	.....
75	.....	11 x 12	.....	4	5	57	290	50	6 1/16	35 1/2	110	105	13250
75	.....	.....	10 x 12	4	5	57	290	50	6 1/16	35 1/2	110	105	.....
110	14 x 13	.....	.....	4 1/2	6	64	275	75	7 1/16	39	135	116	.....
110	.....	13 x 13	.....	4 1/2	6	64	275	75	7 1/16	39	135	116	17225
110	.....	.....	12 x 13	4 1/2	6	64	275	75	7 1/16	39	135	116	.....
150	17 x 15	.....	.....	6	7	71	260	100	8 1/16	43 1/2	150	135	.....
150	.....	16 x 15	.....	6	7	71	260	100	8 1/16	43 1/2	150	135	25000
150	.....	.....	15 x 15	6	7	71	260	100	8 1/16	43 1/2	150	135	.....

A direct connected unit which can be kept perfectly in line because the guides are finished by the same boring bar which finishes the end of the frame for the cylinder fit. The cross head shoes can be adjusted, thus keeping the center of the cross head pin on the center line of the engine.

The main crank bearing is self centering and can be adjusted while the engine is running. The out board bearing is of the dynamo type, it is not rigid with the pillow block; the generator is kept centrally located in the field frame. The engine is perfectly inclosed, thus keeping the engine room clean, as well as keeping out dust and dirt and is always accessible for the making of adjustments.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM ENGINES.

Direct Connected Automatic Cut-off Engines.

FRONT VIEW.

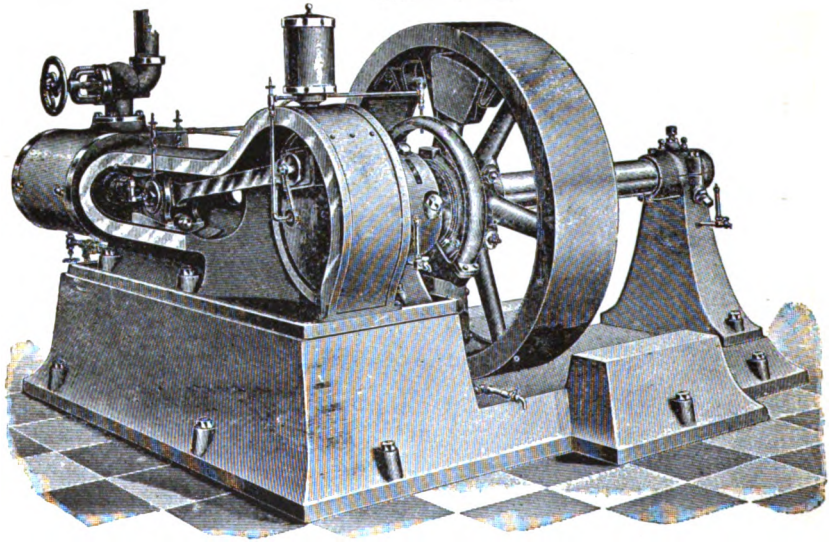

FIG. 1070.

For Specifications, see page 419.

BACK VIEW.

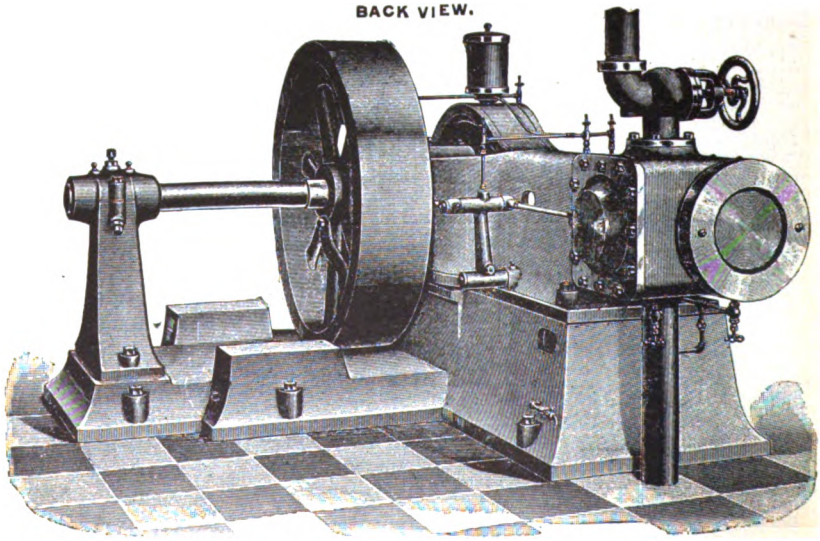

FIG. 1071.

For Specifications, see page 420.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM ENGINES.

Direct Connected Automatic Cut-off Engines.

Standard Sizes.

Mounted on Sub-Bases; Arranged for Direct Connection to Electric Generator.

Horse Power at 80 Pounds Initial Pressure.	Cylinder, Inches.	Steam Pipe, Inches.	Exhaust Pipe, Inches.	Diameter of Governor Wheel, Inches.	Face of Governor Wheel, Inches.	Speed Required to Suit Different Generators. Revolutions per Minute.	Kilo-Watt Capacity of Generator which Engine will Operate at Speed Given.	Number of 55 Watt -16 Candle Power Incandescent Lamps which Engine will Operate at Speeds Given.	Height from Bottom of Sub-Base to Cent. of Cylinder, Inches.	Weight, Pounds.
14 to 17	6x 8	2	2½	36	8	300 to 375	9 to 11	160 to 200	24½	3400
18 to 22	7x 8	2½	3	36	8	300 to 375	12 to 15	200 to 275	24½	3500
27 to 33	8x10	3	3½	42	10	275 to 350	18 to 22	275 to 400	27½	5400
36 to 43	9x10	3	3½	42	10	275 to 350	24 to 28	400 to 500	27½	5600
46 to 54	10x12	3½	4	46	11	250 to 300	30 to 35	500 to 650	30½	8300
55 to 65	11x12	3½	4	46	11	250 to 300	35 to 45	650 to 800	30½	8600
68 to 82	12x14	4	5	52	11	225 to 275	45 to 55	800 to 1000	35½	12200
81 to 98	13x14	4	5	52	11	225 to 275	55 to 65	1000 to 1200	35½	12600
98 to 115	14x16	4½	6	64	11¼	200 to 240	65 to 75	1200 to 1400	45½	17100
111 to 133	15x16	5	6	64	11¼	200 to 240	70 to 90	1400 to 1600	45½	17600

Prices on application.

All engines of this type are left-hand side crank engines, and have full finish.

The fixtures included with each engine are: Rites Inertia Governor made sufficiently heavy to also act as a fly wheel, Elbow Throttle Valve, Nickel Plated Double Glass Sight-Feed Cylinder Lubricator and connections, Cylinder Drain Cocks with pipe connections to exhaust pipe, Valve for draining steam chest with pipe connection to exhaust pipe, Special Wrenches, Foundation Bolts and Plates, Cast Iron Oil Guard for crank wheel, Cast Iron Oil Guard for eccentric, Oil Gauges for self-oiling main shaft journals, Oil cocks for oil reservoirs in sub-base, and Complete Tank Oiling System as described for oiling the engine, including the Centrifugal Oiler for main wrist pin and Wipe Oiler for crosshead.

Foundation plans and full directions for setting up and operating accompany each outfit.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM ENGINES.

Direct Connected Automatic Cut-off Engines.

Square and Over Square Sizes.

Mounted on Sub-Bases; Arranged for Direct Connection to Electric Generator.

Horse Power at 80 Pounds Initial Pressure.	Cylinder, Inches.	Steam Pipe, Inches.	Exhaust Pipe, Inches.	Diameter of Governor Wheel, Inches.	Face of Governor Wheel, Inches.	Speed Required to Suit Different Generators. Revolutions per Minute.	Kilo-Watt Capacity of Generator which Engine will Operate at Speeds Given.	Number of 55 Watt-16 Candle Power Incandescent Lamps which Engine will Operate at Speed Given.	Height from Bottom of Sub-base to Center of Cylinder, Inches.	Weight, Pounds
24 to 30	8x 8	3	3½	42	10	300 to 375	16 to 20	300 to 350	27¾	5400
30 to 36	9x 8	3	3½	42	10	300 to 375	20 to 24	350 to 450	27¾	5600
44 to 55	10x10	3½	4	46	11	275 to 350	30 to 35	450 to 650	30¾	8300
53 to 67	11x10	3½	4	46	11	275 to 350	35 to 45	650 to 800	30¾	8600
67 to 83	12x12	4	5	52	11	250 to 300	45 to 55	800 to 1000	35¼	12200
80 to 96	13x12	4	5	52	11	250 to 300	55 to 65	1000 to 1200	35¼	12600
96 to 115	14x14	4½	6	64	11½	225 to 275	65 to 75	1200 to 1400	45¾	17100
112 to 135	15x14	5	6	64	11½	225 to 275	70 to 90	1400 to 1600	45¾	17600

Prices on application.

All engines of this type are left-hand side crank engines.

The fixtures included with each engine are: Rites Inertia Governor made sufficiently heavy to also act as fly wheel, Elbow Throttle Valve, Nickel Plated Double Glass Sight Feed Cylinder Lubricator and connections, Cylinder Drain Cocks with pipe connections to exhaust pipe, Valve for draining steam chest with pipe connection to exhaust pipe, Special Wrenches, Foundation Bolts and Plates, Cast Iron Oil Guard for crank wheel, Cast Iron Oil Guard for eccentric, Oil Guages for self-oiling main shaft journals, Oil Cocks for oil reservoirs in sub-base, and Complete Tank Oiling System as described for oiling the engine, including the Centrifugal Oiler for main wrist pin, and Wipe Oiler for crosshead.

Foundation plans and full directions for setting up and operating accompany each outfit.

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THE W. M. PATTISON SUPPLY CO. 421 CLEVELAND

Bate's Standard Heavy Duty Corliss Engines.

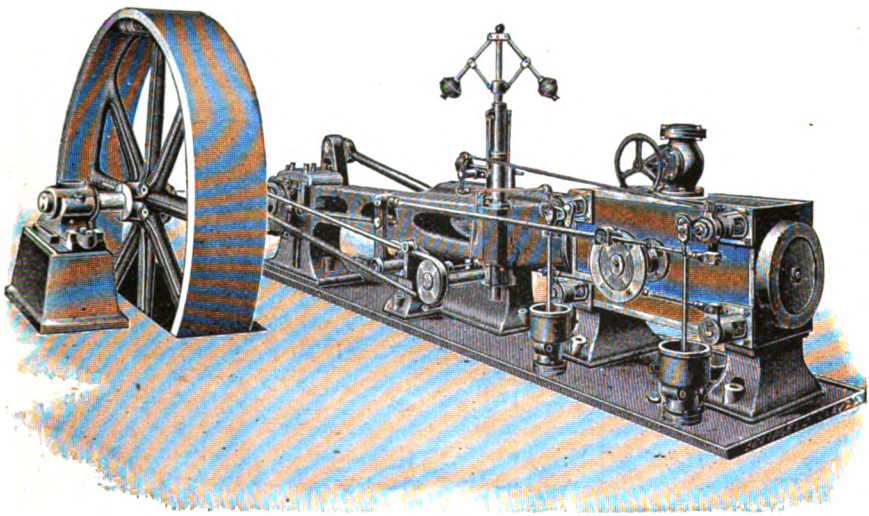

FIG. 1072.

For Specifications, see page 422.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM ENGINES.

Bate's Standard Heavy Duty Corliss Engines.

INDICATED HORSE POWER.						Cylinder, Inches.	BAND FLY WHEEL.			Revolutions per Minute.
80 Pounds Pressure.		90 Pounds Pressure.		100 Pounds Pressure.			Diameter, Feet.	Face, Inches.	Weight, Pounds.	
CUT OFF.										
1/5	1/4	1/5	1/4	1/5	1/4					
54	65	62	74	69	83	12x30	9	15	5700	90
61	73	70	84	78	94	12x36	10	17	6300	85
83	100	95	114	107	128	14x36	10	19	8900	85
93	112	107	128	120	144	14x42	12	19	9300	82
105	126	120	144	135	162	16x36	12	21	10000	82
116	139	133	159	150	179	16x42	12	23	11800	78
129	155	148	177	166	199	18x36	12	25	13000	80
147	176	168	202	189	227	18x42	14	25	13500	78
162	194	185	222	208	249	18x48	15	25	15300	75
175	210	200	240	225	270	20x42	15	25	16600	75
192	230	219	263	246	296	20x48	16	27	18700	72
211	254	242	290	271	326	22x42	16	29	18700	75
232	278	265	318	298	358	22x48	16	33	23100	72
262	314	299	359	336	404	22x60	18	35	26300	65
268	322	307	368	345	414	24x48	18	35	24400	70
311	374	356	427	401	481	24x60	20	40	28500	65
315	378	360	432	405	486	26x48	18	42	29000	70
366	438	418	502	470	564	26x60	20	48	34000	65
355	426	406	487	457	548	28x48	20	44	31500	68
424	509	485	582	545	654	28x60	22	50	36000	65
407	489	466	559	524	629	30x48	22	46	33000	68
464	557	531	637	597	717	30x60	24	52	38500	62
443	532	507	608	570	684	32x48	24	48	34500	65
479	562	548	639	603	712	32x54	24	52	38300	64
529	634	604	725	680	816	32x60	24	60	44000	62
563	675	643	772	723	868	32x72	24	66	58200	55
500	600	572	686	644	772	34x48	.....	.....	.....	65
597	716	682	818	767	920	34x60	.....	.....	.....	62
635	762	726	871	817	980	34x72	.....	.....	.....	55
669	803	765	918	860	1032	36x60	.....	.....	.....	62
711	853	814	977	916	1099	36x72	.....	.....	.....	55

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 423

STEAM ENGINES.

Bate's Extra Heavy Duty Corliss Engines.

FRONT VIEW.

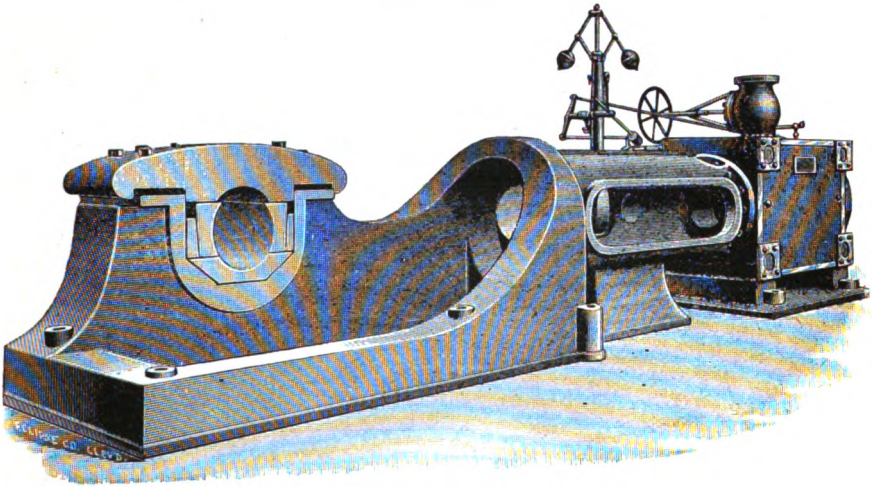

FIG. 1073.

BACK VIEW.

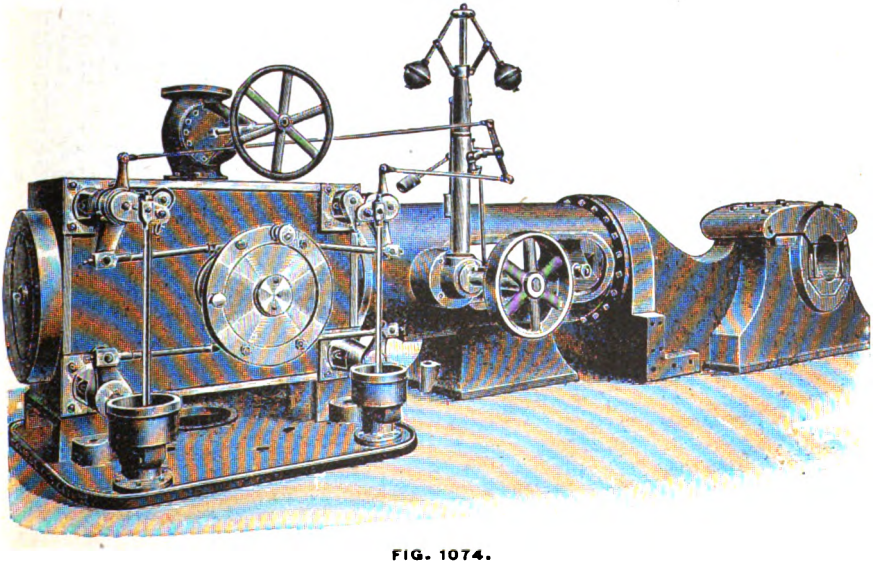

FIG. 1074.

For Specifications, see page 424.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM ENGINES.

Bate's Extra Heavy Duty Corliss Engines.

INDICATED HORSE POWER.								Cylinder, Inches.	BAND FLY WHEEL.			Revolutions per Minute	Steam Pipe, Inches.	Exhaust Pipe, Inches.
90 Pounds Pressure.		100 Pounds Pressure.		125 Pounds Pressure.		140 Pounds Pressure.			Diameter, Feet.	Face, Inches.	Weight, Pounds.			
CUT OFF.														
⅓	¼	⅓	¼	⅓	¼	⅓	¼							
120	144	135	162	173	200	197	226	16x36	12	21	11000	82	4½	6
133	150	150	179	192	221	218	250	16x42	12	23	12980	78	4½	6
148	177	166	199	214	216	243	279	18x36	12	25	14300	80	5	7
168	202	189	227	244	281	276	317	18x42	14	23	14680	78	5	7
185	222	208	249	268	308	303	348	18x48	15	25	16830	75	5	7
200	240	225	270	289	333	328	376	20x42	15	25	18260	75	6	7
219	263	246	296	317	365	360	412	20x48	16	27	20570	72	6	7
248	297	279	334	358	413	406	466	20x60	16	31	26840	65	6	7
242	290	271	326	350	403	396	455	22x42	16	29	19800	75	7	8
265	318	298	358	385	443	436	500	22x48	16	33	25410	72	7	8
299	359	336	404	433	499	490	563	22x60	18	35	28930	65	7	8
307	368	345	414	444	511	503	577	24x48	18	35	26840	70	8	9
356	427	401	481	515	594	584	671	24x60	20	40	31350	65	8	9
360	432	405	486	521	600	590	677	26x48	18	42	31900	70	8	10
418	502	470	564	602	693	682	784	26x60	20	48	37400	65	8	10
406	487	457	548	588	677	666	765	28x48	20	44	34650	68	9	10
485	582	545	654	700	807	794	912	28x60	22	50	39600	65	9	10
466	559	524	629	674	776	764	877	30x48	22	46	36300	68	9	12
531	637	597	717	770	886	872	1000	30x60	24	52	42350	62	9	12
507	608	570	684	734	845	832	955	32x48	24	48	37950	65	10	12
604	725	680	816	875	1007	990	1137	32x60	24	60	48290	62	10	12
643	772	723	868	931	1073	1055	1211	32x72	24	66	58200	55	10	12
572	686	644	772	828	954	938	1077	34x48	24	50	39000	65	11	13
682	818	767	920	987	1137	1118	1284	34x60	24	62	55000	62	11	13
726	871	817	980	1051	1211	1191	1367	34x72	24	74	59300	55	11	13
611	749	688	825	886	1020	1003	1152	36x48	24	56	44300	62	12	14
765	918	860	1032	1107	1275	1254	1440	36x60	24	70	55500	62	12	14
814	977	916	1099	1178	1357	1335	1532	36x72	26	72	75000	55	12	14

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THE W. M. PATTISON SUPPLY CO. 425 CLEVELAND

Bate's Extra Heavy Duty Cross Compound Direct Connected Corliss Engines.

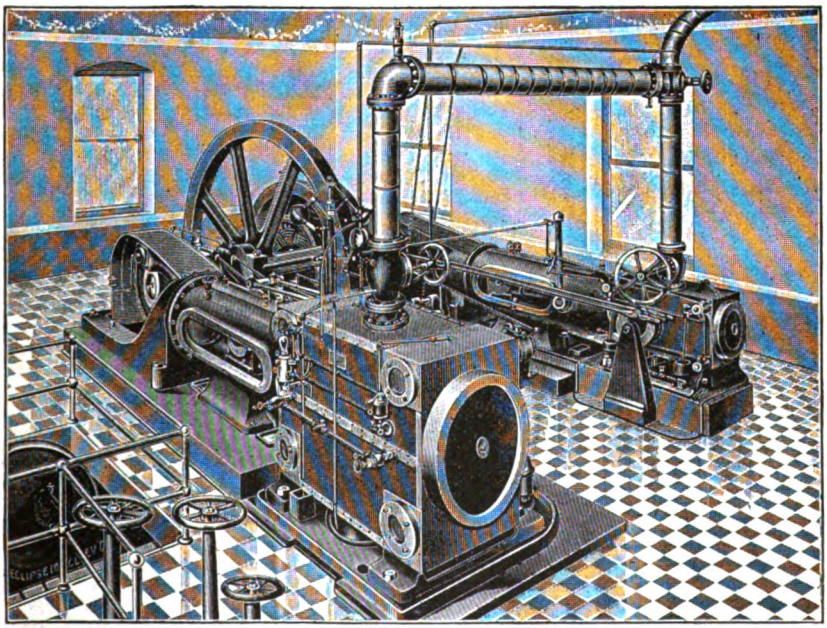

FIG. 1075.

For Specifications, see pages 426, 427, 428 and 429.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

Bate's Extra Heavy Duty Cross

High Pressure Cylinder, Inches.	Low Pressure Cylinder, Inches.	Stroke, Inches.	Revolutions, Per minute.	Horse Power at 90 Pounds Pressure. Cut Off.			Horse Power at 95 Pounds Pressure. Cut Off.			Horse Power at 100 Pounds Pressure. Cut Off.		
				1/5	1/4	1/3	1/5	1/4	1/3	1/5	1/4	1/3
12	22	36	100	116	140	178	121	151	189	130	159	200
			110	128	154	196	133	166	208	143	175	220
			120	139	168	214	145	182	227	156	191	240
14	26	36	100	166	185	249	173	196	264	180	208	278
			110	183	203	274	190	210	290	198	229	306
			120	199	222	299	208	235	317	216	250	334
14	26	42	100	193	216	290	202	229	307	210	242	325
			110	212	238	319	222	252	338	231	266	358
			120	232	260	348	242	275	369	252	290	391
16	30	42	100	257	287	387	268	305	409	278	322	431
			110	283	316	426	295	336	450	306	354	474
			120	308	345	465	322	367	491	334	386	517
16	30	48	90	268	295	398	279	313	421	290	332	444
			100	298	328	442	310	348	468	322	369	493
			110	328	361	486	342	383	515	354	406	542
18	34	42	100	317	372	454	330	385	468	344	399	482
			110	349	409	499	363	424	515	378	439	530
			120	380	446	544	396	463	562	412	479	578
18	34	48	90	345	379	511	359	402	540	374	426	571
			100	383	421	568	399	447	600	415	473	634
			110	421	463	625	439	492	660	457	520	697
20	36	42	100	367	447	561	381	474	594	412	502	625
			110	404	492	617	419	521	653	453	552	688
			120	441	537	673	457	568	712	494	602	751
20	36	48	90	378	460	576	392	488	610	424	516	643
			100	420	511	640	435	542	678	471	573	714
			110	462	562	704	479	596	746	518	630	785
22	42	42	100	483	545	695	505	567	715	525	588	735
			110	531	600	765	556	624	787	578	647	809
			120	579	655	835	607	681	859	631	706	883
22	42	48	90	504	569	725	527	592	746	548	614	768
			100	560	632	806	586	658	829	609	682	853
			110	616	695	887	645	724	912	670	750	938
22	42	60	70	487	550	701	558	571	721	529	593	742
			80	557	628	801	638	653	824	605	678	848
			90	626	707	901	717	734	927	680	759	954
24	44	48	80	530	564	760	562	598	802	593	633	846
			90	596	635	855	632	673	902	668	712	952
			100	662	706	950	702	748	1003	742	791	1058
26	48	60	70	693	700	994	735	784	1050	779	829	1109
			80	792	800	1136	840	896	1200	891	947	1267
			90	891	900	1278	945	1008	1350	1003	1066	1426
28	52	60	70	784	865	1164	812	917	1231	840	970	1298
			80	896	988	1330	928	1048	1407	960	1108	1483
			90	1008	1112	1497	1044	1179	1582	1080	1247	1669

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

Compound Direct Connected Engines.

Horse Power at 105 Pounds Pressure.			Horse Power at 110 Pounds Pressure.			Horse Power at 115 Pounds Pressure.			Horse Power at 120 Pounds Pressure.		
Cut Off.			Cut Off.			Cut Off.			Cut Off.		
⅓	¼	⅜	⅓	¼	⅜	⅓	¼	⅜	⅓	¼	⅜
138	167	209	146	177	220	153	185	230	160	194	240
152	184	230	160	194	242	168	203	253	177	213	264
166	201	251	175	212	264	184	222	276	193	232	288
187	219	292	194	230	308	201	242	321	208	253	336
206	241	321	213	253	339	221	266	353	229	278	370
224	263	350	233	276	370	241	290	385	250	303	404
218	256	341	226	269	359	234	282	375	242	295	391
240	282	375	249	296	395	257	310	410	266	325	430
262	308	409	271	323	431	281	338	451	290	355	469
289	340	453	300	357	447	311	374	499	321	388	520
318	374	498	330	393	525	343	411	549	353	438	572
347	408	543	360	429	573	373	448	599	385	478	624
302	350	466	313	367	492	324	389	518	335	410	538
335	389	518	348	408	547	360	432	576	372	456	598
369	428	570	383	449	602	396	475	634	409	502	658
358	427	509	372	440	537	385	454	550	399	468	564
394	470	560	409	484	591	424	499	605	439	515	620
430	513	611	446	528	645	463	544	660	477	562	676
388	449	600	402	473	631	417	495	660	431	518	688
431	499	667	447	525	701	463	550	733	479	576	764
474	549	734	492	578	771	509	605	806	527	633	840
435	527	655	459	554	691	482	582	725	506	609	754
479	580	721	505	609	760	530	640	798	557	670	829
523	633	787	551	664	829	578	698	871	608	731	904
447	542	677	472	571	711	496	599	723	520	627	775
497	602	752	524	634	790	551	665	803	578	696	861
547	662	827	576	697	869	606	432	883	635	765	947
545	630	777	567	650	820	588	672	840	610	695	860
600	693	855	624	715	902	647	739	924	671	765	946
655	750	933	681	780	984	706	806	1008	732	835	1032
569	658	811	592	679	856	615	702	877	637	725	898
632	731	901	658	744	951	682	780	974	708	806	998
695	804	991	724	829	1046	750	858	1071	779	887	1098
550	635	784	571	659	826	593	677	847	615	701	868
628	726	896	653	749	944	678	774	968	702	801	992
707	816	1008	734	842	1062	762	870	1089	790	901	1116
628	668	890	662	703	938	694	737	979	726	771	1022
707	752	1002	795	791	1056	781	829	1102	816	868	1150
785	835	1113	828	879	1173	868	921	1224	907	964	1278
822	873	1168	868	917	1232	910	962	1238	952	1008	1337
939	998	1335	992	1048	1408	1040	1104	1472	1088	1152	1528
1057	1122	1502	1116	1179	1584	1170	1242	1656	1224	1246	1719
875	1022	1365	910	1075	1435	938	1128	1493	973	1181	1616
1000	1168	1560	1090	1229	1640	1072	1289	1712	1112	1349	1790
1125	1314	1755	1170	1383	1845	1206	1450	1926	1251	1518	2013

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

Bate's Extra Heavy Duty Cross

High Pressure Cylinder, Inches.	Low Pressure Cylinder, Inches.	Stroke, Inches.	Revolutions, Per Minute.	Horse Power at 125 Pounds Pressure. Cut Off.			Horse Power at 130 Pounds Pressure. Cut Off.		
				⅓	½	⅝	⅓	½	⅝
12	22	36	100	168	202	250	175	211	260
			110	185	222	275	193	232	286
			120	201	243	300	210	253	312
14	26	36	100	214	264	350	221	275	364
			110	235	290	385	243	303	400
			120	257	316	420	265	331	436
14	26	42	100	250	309	408	258	321	425
			110	275	340	449	284	353	468
			120	300	371	490	310	385	511
16	30	42	100	332	410	542	343	427	564
			110	365	451	596	377	470	620
			120	398	492	650	412	513	676
16	30	48	90	347	421	557	357	521	583
			100	385	468	619	397	590	648
			110	424	515	681	437	649	713
18	34	42	100	413	495	590	427	509	619
			110	454	545	649	470	560	681
			120	495	595	708	513	611	743
18	34	48	90	446	542	718	459	565	747
			100	495	602	798	510	628	830
			110	545	662	878	561	691	913
20	36	42	100	527	636	788	551	662	819
			110	580	700	867	606	728	901
			120	633	764	946	661	794	983
20	36	48	90	542	663	809	566	683	842
			100	602	737	899	629	759	935
			110	662	811	989	692	835	1025
22	42	42	100	668	758	959	689	800	1002
			110	735	834	1055	758	880	1102
			120	802	910	1151	827	960	1202
22	42	48	90	680	772	977	702	815	1021
			100	756	858	1086	780	906	1134
			110	832	944	1195	858	997	1247
22	42	60	70	662	749	952	683	791	994
			80	756	856	1088	780	904	1136
			90	851	963	1224	878	1017	1278
24	44	48	80	758	805	1068	795	840	1110
			90	853	906	1202	895	945	1248
			100	948	1006	1335	994	1050	1387
26	48	60	70	994	1057	1400	1043	1099	1449
			80	1136	1208	1600	1192	1256	1656
			90	1278	1359	1800	1341	1413	1863
28	52	60	70	1008	1234	1632	1036	1285	1700
			80	1152	1416	1866	1184	1469	1943
			90	1296	1586	2099	1332	1652	2185

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

Compound Direct Connected Engines.

Horse Power at 135 Pounds Pressure.			Horse Power at 140 Pounds Pressure.			Horse Power at 145 Pounds Pressure.			Horse Power at 150 Pounds Pressure.		
Cut Off.			Cut Off.			Cut Off.			Cut Off.		
⅓	½	⅝	⅓	½	⅝	⅓	½	⅝	⅓	½	⅝
183	219	270	190	228	281	197	236	291	204	245	301
201	241	297	209	251	309	217	260	320	225	270	331
220	263	324	228	274	337	236	283	349	245	294	362
228	287	379	235	298	393	249	309	407	256	321	422
256	316	417	259	328	432	274	340	448	282	353	464
274	345	455	282	358	471	299	371	489	307	385	500
266	334	441	274	347	460	290	359	475	298	378	491
293	367	485	301	382	506	319	395	523	328	416	540
319	400	529	329	417	552	348	431	571	358	454	589
353	445	587	364	462	609	385	480	631	396	497	659
388	490	646	400	528	670	424	528	694	436	547	719
424	535	705	437	574	731	462	576	757	475	597	784
368	454	609	380	480	628	402	493	648	413	512	674
409	504	677	422	533	698	447	548	720	459	569	749
450	554	745	464	589	768	492	603	782	505	626	824
440	537	635	454	550	660	468	564	674	482	590	702
484	591	699	499	605	726	515	620	741	530	649	779
528	645	763	544	660	792	562	676	808	578	708	847
474	588	777	488	611	806	517	635	835	533	657	864
527	653	863	542	679	895	574	705	928	592	730	960
580	718	949	596	747	983	631	771	1021	651	803	1058
574	687	851	605	717	882	621	942	914	643	769	945
631	756	936	666	789	970	683	816	1005	707	846	1099
688	825	1021	727	861	1058	745	890	1096	771	963	1135
591	709	876	615	737	908	636	763	942	663	791	975
656	788	973	683	819	1009	707	848	1047	737	879	1083
722	867	1070	751	901	1110	778	933	1151	811	967	1191
612	822	1023	737	848	1071	758	891	1091	779	912	1134
673	904	1125	811	933	1178	834	980	1200	857	1003	1247
734	986	1227	885	1018	1285	910	1069	1309	935	1094	1360
725	839	1042	751	862	1091	772	907	1112	794	929	1156
806	932	1158	834	958	1212	858	1008	1236	882	1032	1284
887	1025	1274	917	1054	1333	944	1109	1360	970	1135	1412
706	819	1015	730	833	994	749	862	1085	770	903	1127
806	936	1160	832	952	1136	856	1008	1240	880	1032	1288
907	1053	1305	936	1071	1278	963	1134	1395	990	1161	1449
822	874	1152	856	908	1198	890	943	1242	922	977	1158
924	984	1296	963	1022	1385	1002	1061	1398	1037	1100	1445
1027	1093	1440	1070	1135	1450	1113	1179	1553	1153	1221	1606
1078	1148	1512	1120	1120	1568	1169	1239	1624	1204	1281	1680
1332	1312	1722	1280	1360	1792	1336	1416	1956	1376	1464	1920
1386	1476	1944	1490	1530	2016	1503	1593	2088	1548	1647	2160
1076	1339	1766	1106	1391	1833	1169	1443	1906	1197	1497	1968
1224	1530	2018	1264	1590	2095	1336	1649	2171	1368	1711	2249
1377	1721	2271	1422	1789	2357	1508	1855	2442	1539	1926	2530

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEAM ENGINES.

The Bate's Corliss Engine Cylinders.

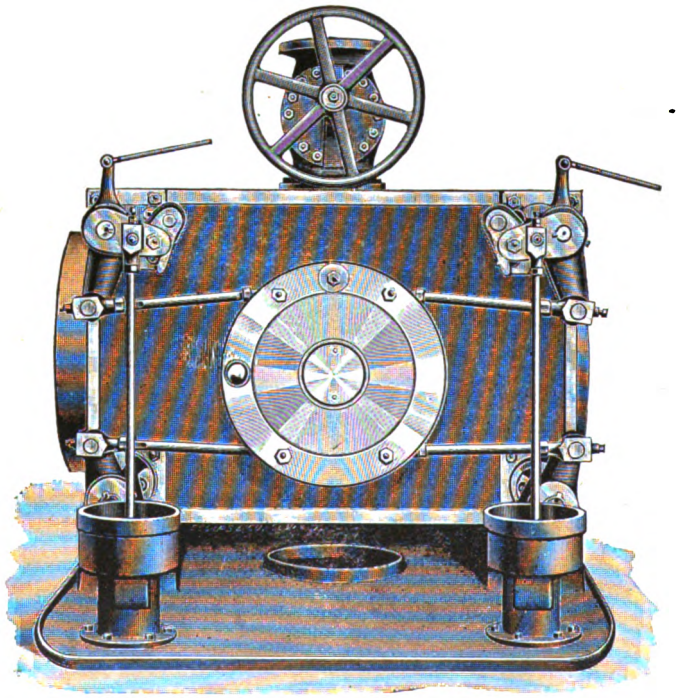

FIG. 1076.

All cylinders are made of clean hard close-grained iron, covered with sheet steel lagging having polished corner irons. The space between the jacket and cylinder is filled with asbestos or mineral wool.

All engines are equipped with Automatic Stops. The valves are located much closer to the cylinder than is the usual custom, thus reducing the clearance to a minimum.

The exhaust passage is detached from the cylinder thereby avoiding the evil effects of cold exhaust steam.

Complete details furnished on application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

HORIZONTAL STYLE WITH HALF BASE.

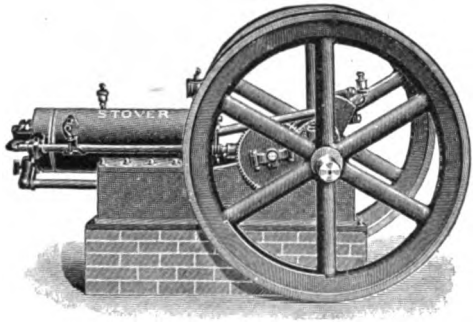

FIG. 1077.

VERTICAL STYLE.

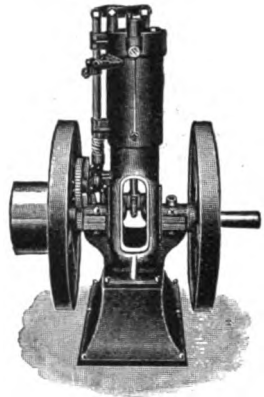

FIG. 1078.

Number.	STYLE	Horse Power.	PULLEY. Diameter, Inches.	PULLEY. Face, Inches.	Speed. Revolutions per Minute.	FLOOR SPACE. Length, Inches.	FLOOR SPACE. Width, Inches.	Weight, Pounds.
2	Vertical	1½	8	4	375	48	28	600
4	Vertical	3	10	8	350	34	31	1000
6	Vertical	4	12	8	350	34	31	1350
8	Horizontal, with full iron base	4	12	8	340	58	34	1600
24	Horizontal, for brick foundation	4	12	8	340	58	34	1500
10	Horizontal, with full iron base	6	16	8	300	70	40	1900
26	Horizontal, for brick foundation	6	16	8	300	70	40	1750
12	Horizontal, with full iron base	8	20	8	275	76	53	2500
28	Horizontal, for brick foundation	8	20	8	275	76	53	2300
14	Horizontal, with full brick base	12	24	10	225	87	60	2700
30	Horizontal, for brick foundation	12	24	10	225	87	60	3200
16	Portable	4	12	8	340	.....	.....	.....
18	Portable	6	16	8	300	.....	.....	.....
20	Portable	8	20	8	275	.....	.....	.....
22	Portable	12	24	8	225	.....	.....	.....
1	Vertical Pumping	1½	8	4	375	68	30	800
3	Vertical Pumping	3	10	8	350	51	37	1200

The above illustration of a horizontal engine shows a half base. This engine can be furnished with a full base at an additional cost.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

IDEAL SECTIONAL BOILERS.

Water.

18 INCH BOILER.

FIG. 1082.

SECTIONAL VIEW.

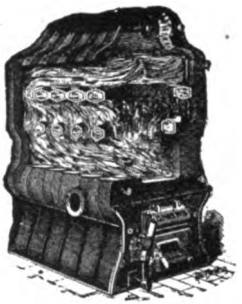

FIG. 1083.

30 INCH BOILER.

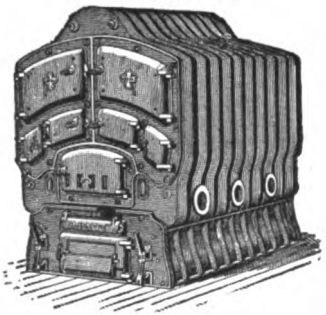

FIG. 1084.

The ratings for Ideal Boilers provide that all piping (mains and risers, flow and return), in addition to the direct radiation to be used, shall be figured as radiating surface in estimating the size of Boiler required.

When a pipe coil or cast-iron section is introduced into the firepot for the purpose of heating water for domestic use, additional capacity should be figured in determining size of boiler, viz., in the case of Steam Boilers, 1¼ square feet of direct radiation for each gallon of water to be thus heated, and in the case of Water Boilers, 2 square feet of direct radiation for each gallon of water to be thus heated according to the capacity of the tank to which coil or section is connected.

When indirect radiation is to be used, not less than 75 per cent. increase over direct radiation should be figured in determining the size of Boiler required.

In rating Hot Water Boilers as above, it is understood that the mean temperature of the water at the Boiler will be 180 degrees Fahrenheit.

These Boilers are guaranteed only to the extent of furnishing new castings for any found defective in manufacture. They are conservatively rated according to accepted standards, but on account of the varying conditions surrounding their installation, we do not guarantee Boilers except as above.

Both on account of increased efficiency and in the interests of greater economy, we strongly recommend that all boilers be thoroughly protected by a substantial covering of asbestos.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

IDEAL SECTIONAL BOILERS.

Hot Water.

Number.	Price, Complete, Each.	Capacity, Direct Radiation, Square Feet.	Number of Sections.	* Length, Inches.	Total Width, Inches.	Total Height, Inches.	Number and Size of Outlets, Inches.	Fire Pot, Inches.	Grate, Inches.	Smoke Pipe, Inches.
512	109.50	375	5	23⅜	27½	50¼	1–2½	15x12x20	12x14	6
612	180.00	500	6	27⅜	27½	50¼	2–2½	15x16x20	12x18	6
712	202.50	625	7	31⅜	27½	50¼	2–2½	15x20x20	12x22	6
								Foundation Inches		
184	202.50	625	4	28	28	51¼	1–3	24x27	18x18	8
185	240.00	825	5	34	28	51¼	1–3	30x27	18x24	8
186	277.50	1025	6	40	28	51¼	2–3	36x27	18x30	8
187	315.00	1250	7	46	28	51¼	2–3	42x27	18x36	8
W–21–5	330.00	1325	5	35	39	54⅞	2–4	31x36	21x28	10
W–21–6	390.00	1650	6	42	39	54⅞	2–4	31x43	21x35	10
W–21–7	450.00	2000	7	49	39	54⅞	2–4	31x50	21x42	10
245	360.00	1500	5	39	40½	59¼	2–4	35x34	24x29	12
246	427.50	1825	6	46¼	40½	59¼	2–4	42x34	24x36¼	12
247	495.00	2150	7	53½	40½	59¼	2–4	49x34	24x43½	12
248	562.50	2475	8	60¾	40½	59¼	3–4	56x34	24x50¾	12
W–30–5	472.50	2100	5	35¼	50	65½	2–4	32x40	30x28	13
W–30–6	577.50	2675	6	42¼	50	65½	2–4	39x40	30x35	13
W–30–7	682.50	3250	7	49¾	50	65½	2–4	46x40	30x42	13
W–30–8	780.50	3825	8	57	50	65½	3–4	53x40	30x49	13
365	630.00	2975	5	46¾	57½	72	2–5	43x46	36x32	14
366	750.00	3700	6	55	57½	72	2–5	51x46	36x40	14
367	862.00	4450	7	63¼	57½	72	2–5	59x46	36x48	14
368	954.00	5200	8	71½	57½	72	3–5	67x46	36x56	14
369	1044.00	5950	9	79¾	57½	72	3–5	76x46	36x64	16

* In 12-inch Sectional Boilers, add ⅜ inches to length for smoke pipe collar on rear.

* In 18-inch Sectional Boilers, add 11⅜ inches to length for smoke hood on rear.

* In 21-inch Sectional Boilers, add 7 1/16 inches to length for smoke hood on rear.

* In 24-inch Sectional Boilers, add 14⅜ inches to length for smoke hood on rear.

* In 30-inch Sectional Boilers, add 9 1/16 inches to length for smoke hood on rear.

* In 36-inch Sectional Boilers, add 10¼ inches to length for smoke hood on rear.

Boilers of greater capacity than listed above can be supplied by adding extra sections at same proportionate price.

For each supply outlet on top of boiler there is a corresponding return inlet on either side of boiler. Extra tappings can be provided if desired.

When soft coal is to be used for fuel, a size larger boiler should be selected than as if hard coal were to be used.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

MODEL SECTIONAL BOILERS.

Steam and Hot Water

STEAM.

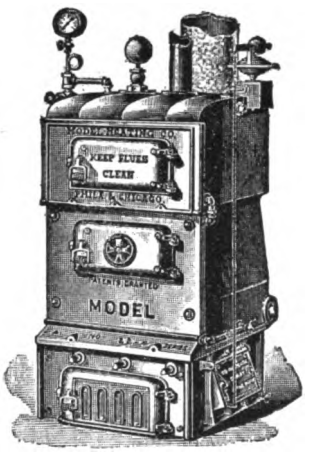

FIG. 1096.

HOT WATER.

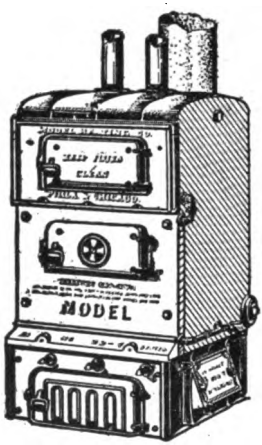

FIG. 1097.

The ratings provide that all piping, mains and returns, in addition to the direct radiation to be used, shall be figured as radiating surface in estimating the size of Boiler required.

The ratings for Model Boilers provide that all piping (mains and risers, flow and return), in addition to the direct radiation to be used, shall be figured as radiating surface in estimating the size of Boiler required.

When a pipe coil or cast-iron section is introduced into the firepot for the purpose of heating water for domestic use, additional capacity should be figured in determining size of boiler, viz., in the case of Steam Boilers, 1¼ square feet of direct radiation for each gallon of water to be thus heated, and in the case of Water Boilers, 2 square feet of direct radiation for each gallon of water to be thus heated according to the capacity of the tank to which coil or section is connected.

When indirect radiation is to be used, not less than 75 per cent. increase over direct radiation should be figured in determining the size of Boiler required.

In rating Steam Boilers, it is understood that an average pressure of 2 lbs. will be maintained at the boiler. **In rating Hot Water Boilers, it is understood that the mean temperature of the water at the Boiler will be 180 degrees Fahrenheit.**

These Boilers are guaranteed only to the extent of furnishing new castings for any found defective in manufacture. They are conservatively rated according to accepted standards, but on account of the varying conditions surrounding their installation, we do not guarantee the Boilers except as above.

Both on account of increased efficiency and in the interests of greater economy, we strongly recommend that all boilers be thoroughly protected by a substantial covering of asbestos.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

IDEAL PORTABLE BOILERS.

Steam and Hot Water.

Ideal Portable Steam Boilers.

Number.	Price, Complete, Each.	Capacity, Direct Radiation Square Feet.	Number of Sections.	Height to Top Outlets, Inches.	Diameter, Inches.	Two Outlets; Size, Inches.	Size, Single Inlets, Inches.	Height of Water Line, Inches.	Diameter, Fire Pot, Inches.	Smoke Pipe, Inches.
103	149.50	300	2	48	31½	2	2	41	19	8
104	167.00	350	3	53½	31½	2	2	46½	19	8
203	193.00	400	2	50	34	2½	2	42	21	9
204	206.50	450	3	56½	34	2½	2	48½	21	9
205	219.50	500	4	62½	34	2½	2	54½	21	9
303	232.50	550	2	52½	38¾	3	2½	43½	25	10
304	246.00	600	3	59½	38¾	3	2½	50½	25	10
305	287.50	650	4	66	38¾	3	2½	57	25	10
403	346.00	850	2	54	44½	3½	3	45	30	11
404	389.50	1000	3	61½	44½	3½	3	52	30	11
405	419.00	1100	4	68½	44½	3½	3	59	30	11
504	462.50	1250	3	63¾	52	4	3½	53	36	12
505	506.50	1450	4	71½	52	4	3½	61	36	12
506	565.00	1600	5	78¾	52	4	3½	69	36	12

Ideal Portable Hot Water Boilers.

Number.	Price, Complete, Each.	Capacity, Direct Radiation, Square Feet.	Number of Sections.	Height to Top Outlets, Inches.	Diameter, Inches.	No. of 2 Inch Branch Outlets.	Size of Single Outlet, Inches.	Diameter Fire Pot, Inches.	Smoke Pipe, Inches.
13	101.00	350	3	43	28¾	4	3	19	8
14	114.00	400	4	47	28¾	4	3	19	8
15	131.50	450	5	51	28¾	4	3	19	8
24	153.50	550	4	49	32½	4	4	21	8
25	171.00	625	5	53½	32½	4	4	21	8
26	187.50	675	6	58	32½	4	4	21	8
34	204.00	775	4	50	36½	4	4	25	9
35	217.50	875	5	55	36½	4	4	25	9
36	233.50	975	6	60	36½	4	4	25	9
37	274.00	1050	7	65	36½	4	4	25	9
44	299.50	1200	4	53	43	6	5	30	10
45	336.00	1400	5	58½	43	6	5	30	10
46	372.50	1600	6	63¾	43	6	5	30	10
47	389.50	1700	7	68¾	43	6	5	30	10
55	402.00	1775	5	60½	50½	8	6	36	11
56	438.50	2000	6	65¾	50½	8	6	36	11
57	486.00	2250	7	71½	50½	8	6	36	11
58	511.50	2400	8	76¾	50½	8	6	36	11

When not otherwise ordered, Portable Boilers are shipped with single outlets. When soft coal is to be used for fuel, a size larger boiler should be selected than as if hard coal were to be used; but it is recommended the Sectional Premier Boiler be selected as more adaptable for use with soft coal.

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THE W. M. ORTTISJN SUPPLY CO. CLEVELAND

FIRE BOX BOILERS.

For Steam and Hot Water Heating.

For Brick Setting, without Dome.

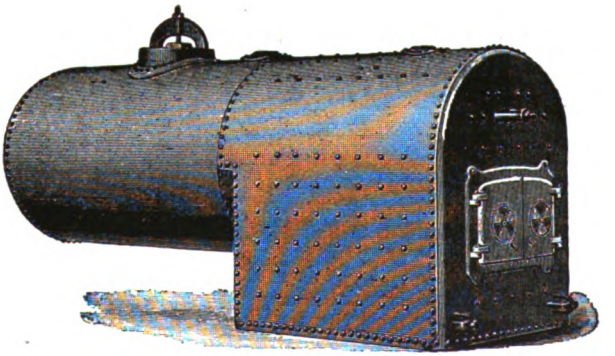

FIG. 1098.

Manholes and Double Fire Doors in all Boilers over 30 inches diameter.

Castings consist of fire doors and frame, ash pit front, large soot door, four small soot doors and shaking grates. Ash pit front is provided with a special left door for automatic regulator.

Trimmings consist of steam gauge, water column with three gauge cocks and water gauge, safety valve and automatic damper regulator.

An iron hoe and poker is furnished with each boiler. Each boiler has a fusible safety plug in crown sheet.

For Setting Plan, see page 446.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

FIRE BOX BOILERS.

For Steam and Hot Water Heating.

Number.	Price, Boiler Only.	Price, Boiler and Castings.	Price, Boiler, Castings and Trimmings Complete.	Capacity Direct Steam Radiation, Square Feet.	Capacity Direct Hot Water Radiation, Square Feet.	Heating Surface, Square Feet.	Grate Area, Square Feet.	Shell.		Outlets			Tubes.		Fire Doors.		Smoke Pipe, Inches.
								Diameter, Inches.	Length Over All, Feet.	Steam Outlets, Inches.	Steam Returns, Inches.	Water Flow and Returns, Inches.	Number.	Diameter, Inches.	Single, Inches.	Double, Inches.	
1	195.00	220.00	233.00	850	1350	152	4.3	30	6½	3	2½	3	40	2	12x18	.....	14
2	205.00	233.00	246.00	950	1500	172	5.3	30	7½	3	2½	3	40	2	12x18	.....	14
3	212.00	243.00	256.00	1100	1750	194	6.3	30	8½	4	3	3½	40	2	12x18	.....	14
4	243.00	277.00	291.00	1200	1900	211	6.7	36	7½	4	3	3½	40	2½	.....	16x22	16
5	272.00	310.00	324.00	1500	2400	252	8.0	36	9	4	3	4	40	2½	.....	16x22	16
6	303.00	344.00	358.00	1800	2900	292	9.2	36	10½	4	3	4	40	2½	.....	16x22	16
7	320.00	364.00	379.00	1800	2900	295	9.5	42	8½	4	3	4	52	2½	.....	16x24	18
8	353.00	401.00	416.00	2200	3500	347	11.0	42	10	6	4	5	52	2½	.....	16x24	18
9	397.00	449.00	464.00	2600	4200	399	12.5	42	11½	6	4	5	52	2½	.....	16x24	18
10	442.00	498.00	514.00	2800	4500	421	13.	48	10½	6	4	5	48	3	.....	18x30	22
11	479.00	540.00	556.00	3300	5300	482	14.7	48	12	6	4	6	48	3	.....	18x30	22
12	514.00	579.00	595.00	3800	6100	541	16.4	48	13½	6	4	6	48	3	.....	18x30	22
13	617.00	689.00	707.00	4500	7200	580	18.6	54	14	7	5	7	34	4	.....	18x30	24
14	662.00	739.00	757.00	5800	9300	720	20.6	54	16½	7	5	7	34	4	.....	18x30	24

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THE W. M. PATTISON SUPPLY CO. CLEVELAND.

FIRE BOX BOILERS.

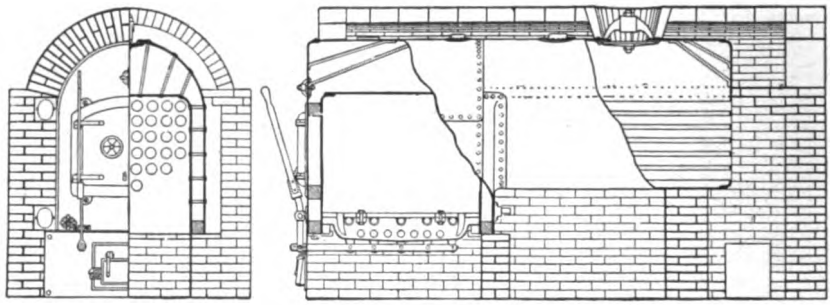

FIG. 1098.

Plan for Setting Fire Box Boilers.

NUMBER	1	2	3	4	5	6	7
Extreme Height of Brick-work.....inches	65	65	65	72	72	72	79
Height to Top of Boiler.....inches	57	57	57	64	64	64	71
Height to Water Line.....inches	51	51	51	56	56	56	61
Height of Ashpit Front.....inches	17	17	17	17	17	17	17
Extreme Length of Brick work.....feet	8 2/3	9 2/3	10 2/3	9 2/3	11 1/6	12 2/3	10 2/3
Extreme Width of Brick-work.....inches	54	54	54	60	60	60	66

NUMBER	8	9	10	11	12	13	14
Extreme Height of Brick-work.....inches	79	79	85	85	85	93	93
Height to Top of Boiler ..... inches	71	71	77	77	77	85	85
Height to Water Line.....inches	61	61	66	66	66	68	68
Height of Ashpit Front.....inches	17	17	17	17	17	17	17
Extreme Length of Brick-work.....inches	12 1/6	13 2/3	13 1/3	14 5/6	16 1/3	16 5/6	19 1/3
Extreme Width of Brick-work.....inches	66	66	80	80	80	86	86

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WATER HEATERS AND LAUNDRY STOVES

IDEAL JR.

FIG. 1100.

SECTIONAL VIEW, IDEAL JR

FIG. 1101.

IDEAL PREMIER JR.

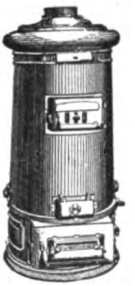
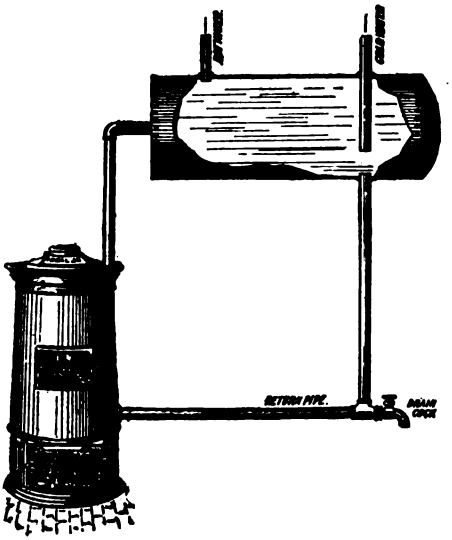


FIG. 1102.

SECTIONAL VIEW, IDEAL PREMIER JR.

FIG. 1103.

IDEAL JR., CONNECTED TO HORIZONTAL TANK.



MODEL LAUNDRY STOVE AND WATER HEATER.

FIG. 1105.

FIG. 1104. **Model Laundry Stoves and Water Heaters.**

Number.	Price, Each.	Capacity Direct Radiation, Square Feet.	Tank Capacity, Gallons.	Height, Inches.	Diameter, Inches.	Size of Outlets, and Returns, Inches.	Depth of Ash Pit, Inches.	Height from Floor to Center of Return, Inches.	Diameter of Fire Pot, Inches.	Approximate Circumference of Smoke Collar, Inches.	Size of Smoke Pipe Recommended, Inches.
10	35.00	75	100	29	13½	1¼	8	17	10	18⅝	6
14	53.00	150	225	31	17½	1½	8	17	14	20⅝	7

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THE W. H. MATTICUS SUPPLY CO. CLEVELAND

WATER HEATERS.

Ideal Jr. Water Heaters.

Number.	Price Complete, Each.	Tank Capacity, Gallons.	Height to Top Outlets, Inches.	Diameter, Inches.	Number and Size of Outlets, Inches.	Diameter Fire Pot, Inches.	Smoke Pipe, Inches.
0	32.50	80	31	18	1–1½	10	5
10	44.50	165	35	21	3–1½	12	5
*11	49.00	200	35	21	3–1½	12	5
†12	53.00	225	40	21	3–1½	12	5
20	60.00	275	43	23	3–2	15	6
*21	70.50	325	43	23	3–2	15	6
†22	74.50	350	47	23	3–2	15	6
30	78.00	370	43	27	3–2	18	7
*31	98.50	485	43	27	3–2	18	7
†32	109.50	550	47	27	3–2	18	7

* This boiler has drop tube. † This boiler has drop tube and dome.

Ideal Premier Water Heaters.

Number.	Price Complete Each.	Capacity, Gallons.	Height, Inches.	Diameter, Inches.	Number and Size of Outlets, Inches.	Diameter of Grate Inches.	Smoke Collar, Inches.
101	35.50	100	33½	17½	1–1½	10½	5
121	46.00	175	36¾	20½	3–1½	12	5
122	53.00	225	41⅝	20½	3–1½	12	5
151	79.00	375	41⅝	22¾	3–2	15	6
152	92.50	450	47½	22¾	3–2	15	6
181	109.50	550	45	26½	3–2	18	7

The ratings for Ideal Heaters provide that all piping, flow and return in addition to the direct radiation to be used, shall be figured as radiating surface in estimating the size of boilers required.

When a pipe coil or cast iron section is introduced into the fire pot for the purpose of heating water for domestic use, additional capacity should be figured in determining size of boiler, viz., in the case of water boilers, 2 square feet of direct radiation for each gallon of water to be thus heated according to the capacity of the tank to which coil or section is connected.

When indirect radiation is to be used, not less than 75 per cent increase over direct radiation should be figured in determining the size of boiler required.

In rating boilers as above, it is understood that the mean temperature of the water at the boiler will be 180 degrees Fahrenheit.

These Heaters are guaranteed only to the extent of furnishing new castings for any found defective in manufacture. They are conservatively rated according to accepted standards, but on account of the varying conditions surrounding their installation, we do not guarantee the Heaters except as above.

Both on account of increased efficiency and in the interests of greater economy, we strongly recommend that all Heaters be thoroughly protected by a substantial covering of asbestos.

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TABASCO STEEL WATER HEATERS.

THE W. M. PATTISON SUPPLY CO. CLEVELAND

TABASCO JR.

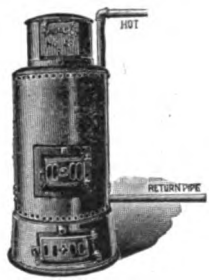

FIG. 1106.

TABASCO.

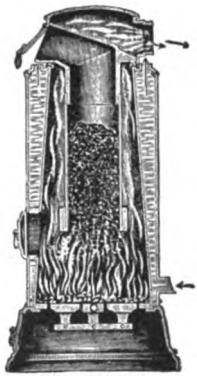

FIG. 1107

Number.	Size, Inches.	Price, Surface Burners, Each.	Price, Magazine Feed, Each.	Heating Capacity Per Hour, Gallons.	Height Over All, Inches.	Number and Size of Opening, Inches.	Weight, Pounds.
* 1	10x16	38.00	.....	30	.....	1	120
* 2	10x18	40.00	.....	40	.....	1	125
* 3	12x24	48.00	.....	65	.....	1	180
* 4	12x30	50.00	.....	80	.....	1	200
* 5	15x30	56.00	.....	100	.....	1¼	250
* 6	15x36	60.00	.....	120	.....	1¼	270
17	17x30	64.00	78.00	130	48	2–1½	430
18	17x36	68.00	82.00	150	54	2–1½	450
21	21x30	77.00	93.00	200	57	2–2	530
22	21x36	84.00	100.00	250	57	2–2	560
23	21x42	90.00	107.00	300	63	2–2	590
24	21x48	95.00	113.00	350	69	2–2	630
25	25x36	120.00	143.00	300	57	2–2	730
26	25x42	126.00	150.00	350	63	2–2	780
27	25x48	133.00	158.00	400	69	2–2	830
30	30x42	140.00	171.00	500	67	2–3	1120
31	30x48	150.00	180.00	600	73	2–3	1220
32	30x54	160.00	188.00	700	79	2–3	1300

*Numbers 1 to 6 are Tabasco Junior Heaters.

All Junior Heaters, except Nos. 1 and 2 have front fire doors.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TABASCO WATER HEATERS.

Connected to Horizontal Tank.

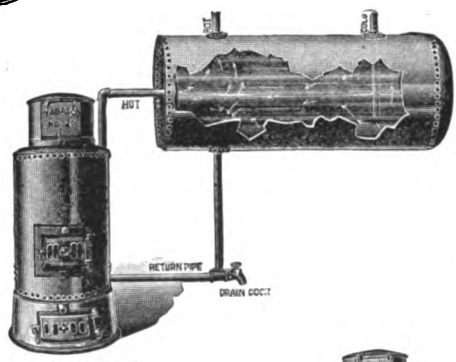

FIG. 1108.

Extra Heavy Tabasco Water Heater, and Vertical Tank.

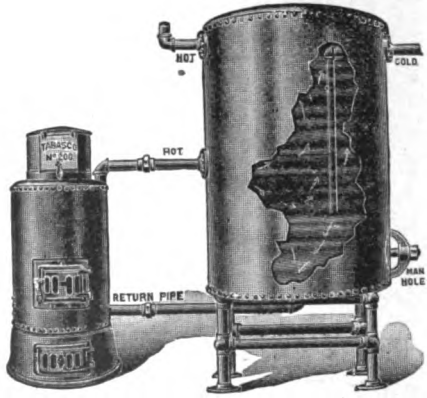

FIG 1109.

Extra Heavy Tabasco Water Heaters

Number.	Price Complete, Including Fire Tools. Each.	Capacity per Hour, Gallons.	Height Over All, Inches.	Diameter Fire Pot, Inches.	Weight, Pounds.
200	125.00	200	58	16	450
300	160.00	300	64	20	600

Extra Heavy Tabasco Tanks and Stands.

Size, Inches.	Price wih Manhole, Each.	Price Tank Stands, Each.	Capacity, Gallons.	Height, Ft.	Height, In.	Weight, Pounds.
42x60	135.00	20.00	360	7	3	1200
48x60	160.00	23.00	470	7	4	1475

Extra Heavy Tanks and Heaters are suitable for a working pressure of 100 pounds.

If Manhole is not wanted in Tank, deduct 12.00 from list.

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WILKS' STEEL WATER HEATERS.

THE W. M. PATTISON SUPPLY CO. CLEVELAND 451

SURFACE BURNER.

FIG. 1110.

MAGAZINE FEED.

FIG. 1111.

Size, Inches	Price, Each.	Approximate Heating Power, 4 Inch Pipe, Feet.	Heating Capacity Per Hour, Gallons.	Height Over all, Inches	Size of Openings, Inches.	Approximate Weight, Pounds.
*10x15	20.00	....	30	....	$\frac{3}{4}$	70
*10x18	21.00	....	40	....	$\frac{3}{4}$	75
*12x24	25.00	....	65	....	1	120
*12x30	26.50	....	75	....	1	130
*14x30	30.00	....	100	....	$1\frac{1}{4}$	180
*14x36	32.00	....	125	....	$1\frac{1}{4}$	190
16x30	57.50	250	140	57	$1\frac{1}{2}$	340
16x36	60.00	300	150	62	$1\frac{1}{2}$	380
20x30	72.00	425	200	66	2	445
20x36	75.00	450	250	72	2	500
20x42	80.00	500	275	78	2	530
24x36	105.00	700	325	76	2	700
24x42	110.00	900	350	82	2	740
30x42	130.00	1200	600	84	3	1230
30x48	135.00	1250	700	90	3	1280
36x42	185.00	1450	900	87	3	1950
36x48	195.00	1550	1000	93	3	2000
42x42	215.00	2000	1200	90	3	2600
42x48	225.00	2400	1300	96	3	2700

*** Sizes 10x15 to 14x36 inches are surface burners; other sizes from 16x30 to 42x48 inches have magazine feed.**

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 452

GALVANIZED TANKS.

With One Inch Galvanized Iron Steam Coil.

VERTICAL.

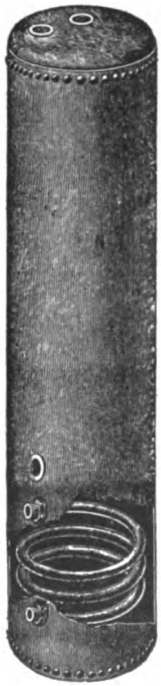

FIG. 1112.

HORIZONTAL.

INLET AT TOP.

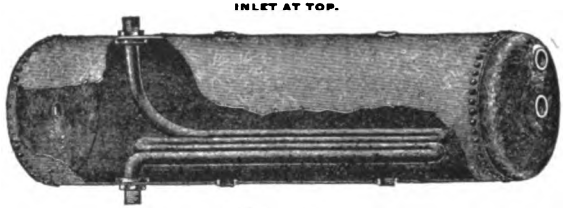

FIG. 1113.

INLET AT BOTTOM.

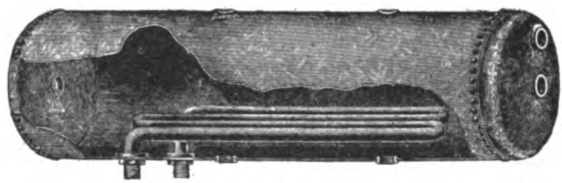

FIG. 1114.

INLET AT END.

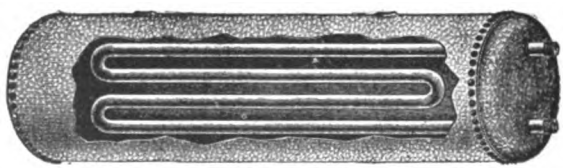

FIG. 1115.

Capacity ...gallons	30	40	52	63	66	79	82	100	120	144	192
Diameter.....inches	12	14	16	16	18	18	20	22	24	24	24
Length...feet	5	5	5	6	5	6	5	5	5	6	8
Price.....each	29.50	36.00	47.00	54.00	56.00	62.00	66.50	88.50	102.50	133.00	162.00

When ordering state number of pounds of Steam Pressure on coil.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 453

TABASCO TANKS.

Horizontal or Vertical, with or without Steam Coil.

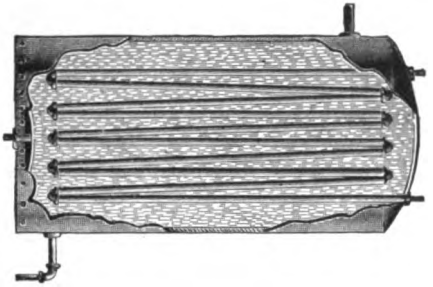

FIG. 1116.

Capacity, Gallons.	Diameter, Inches.	Length, Feet.	Weight.	Price Tanks.		Price, Coils Built in Tanks.			
				Plain, Each.	Galvanized, Each.	Number of Pipes and Size Coil, Inches.	Price, Plain Coil.	Price, Galvanized Coil.	Price, Brass Coil.
66	18	5	220	48.00	60.00	4—1	11.00	13.00	30.00
85	20	5	250	50.00	63.00	4—1	11.00	13.00	30.00
100	22	5	280	52.00	67.00	4—1	11.00	13.00	30.00
120	24	5	320	55.00	72.00	4—1¼	14.00	16.00	40.00
145	24	6	360	58.00	78.00	4—1¼	15.00	17.00	45.00
170	24	7	400	61.00	83.00	4—1½	16.00	18.00	50.00
180	30	5	480	64.00	90.00	4—1¼	14.00	16.00	40.00
215	30	6	540	70.00	98.00	4—1¼	15.00	17.00	45.00
250	30	7	590	75.00	105.00	4—1¼	16.00	18.00	50.00
290	30	8	640	80.00	112.00	4—1¼	17.00	19.00	55.00
315	36	6	780	92.00	.....	4—1½	18.00	21.00	56.00
365	36	7	810	102.00	.....	4—1½	19.00	22.00	62.00
420	36	8	880	112.00	.....	4—1½	20.00	23.00	68.00
525	36	10	980	120.00	.....	4 1½	22.00	25.00	80.00
430	42	6	1150	116.00	.....	4—1½	18.00	21.00	56.00
575	42	8	1400	139.00	.....	4—1½	21.00	24.00	68.00
720	42	10	1650	146.00	.....	4—1½	24.00	27.00	80.00
865	42	12	1950	167.00	.....	4—1½	27.00	30.00	92.00
1000	42	14	2300	188.00	.....	4—1½	30.00	33.00	104.00

For Manholes in head or shell add 12.00 to list. No extra charge for more or larger openings than shown in illustration. In ordering, state whether vertical or horizontal Tanks are wanted, and give sizes and location of openings.

Tank Stands for Vertical Tanks.

Diameter Tank .....Inches	18	20	24	30	36
Price Stands .....Each	3.00	3.00	4.00	4.00	4.00

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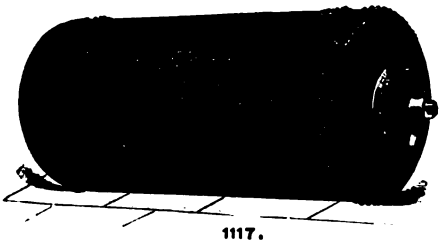
THE W. M. PATTISON SUPPLY CO. CLEVELAND

TANKS.

With Dished Heads and Flanged Openings.



1117.

Number.	Price, Each.	Capacity, Gallons.	Diameter, Inches.	Length, Inches.	Thickness of Shell, Inches.	Thickness of Heads, Inches.	Weight, Pounds.
1	60.00	117	24	60	¼	5/16	490
2	68.00	141	24	72	¼	5/16	560
3	72.00	165	24	84	¼	5/16	660
4	70.00	147	30	48	¼	⅜	570
5	80.00	184	30	60	¼	⅜	660
6	90.00	220	30	72	¼	⅜	740
7	100.00	257	30	84	¼	⅜	840
8	110.00	294	30	96	¼	⅜	940
9	102.00	264	36	60	¼	⅜	840
10	114.00	317	36	72	¼	⅜	940
11	126.00	370	36	84	¼	⅜	1040
12	138.00	423	36	96	¼	⅜	1140
13	124.00	360	42	60	¼	⅜	1010
14	138.00	432	42	72	¼	⅜	1120
15	152.00	502	42	84	¼	⅜	1250
16	166.00	575	42	96	¼	⅜	1390
17	180.00	648	42	108	¼	⅜	1540
18	194.00	720	42	120	¼	⅜	1670
19	168.00	562	48	72	¼	⅜	1350
20	184.00	658	48	84	¼	⅜	1490
21	200.00	751	48	96	¼	⅜	1600
22	216.00	846	48	108	¼	⅜	1800
23	232.00	940	48	120	¼	⅜	2000

Manholes in head or shell, 10.00 each, extra.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

EXPANSION TANKS.

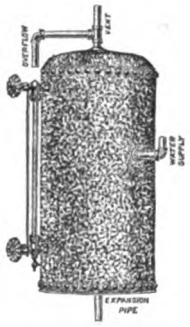

FIG. 1118.

Capacity .....gallons	5½	8	10	12	15	18	20	24
Price .....each	6.00	7.50	8.00	8.50	9.00	9.50	12.50	13.00
Diameter.....inches	9	10	12	12	12	12	14	14
Height.....inches	20	20	20	24	30	36	30	36
Suitable for Radiation, square feet..	150	250	350	450	550	650	700	850

Capacity..... gallons	26	32	42	66	82	100	120	.....
Price.....each	14.00	15.00	16.50	31.00	37.00	51.00	58.00	.....
Diameter.....inches	16	16	16	18	20	22	24	.....
Height.....inches	30	36	48	60	60	60	60	.....
Suitable for Radiation, square feet.	900	1250	1750	2750	4500	6000	7500	.....

For Price of Gauges, see page 300.

HOT WATER AND STEAM THERMOMETERS.

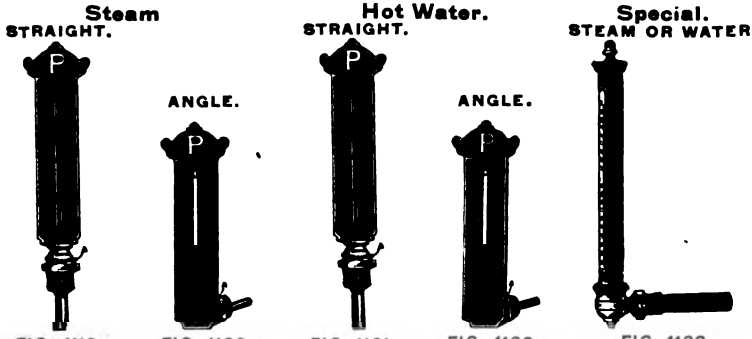

FIG. 1119. FIG. 1120. FIG. 1121. FIG. 1122. FIG. 1123.

Price, Straight Stem, Steam Thermometer.....each		3.25
Price, Angle Stem, Steam Thermometer.....each		3.75
Price, Straight Stem, Hot Water Thermometer.....each		3.00
Price, Angle Stem, Hot Water Thermometer.....each		3.50
Price, Special Steam or Water Thermometer.....each		8.00

Fig. 1123 has brass cylindrical frame with jam nut; 10 inches long above elbow; graduated not to exceed 600 degrees; length of tube beyond shoulder not to exceed 4 inches.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 456

AMERICAN RADIATORS.

ROCOCO.

FIG. 1124.

NATIONAL, SINGLE COLUMN

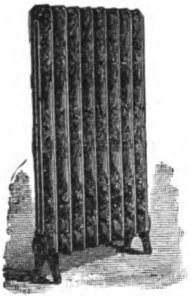

FIG. 1125.

NATIONAL, TWO COLUMN.

FIG. 1126.

NATIONAL, FOUR COLUMN.

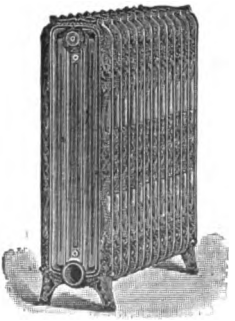

FIG. 1127.

BUFFALO STANDARD, SINGLE COLUMN.

FIG. 1128.

BUFFALO STANDARD, TWO COLUMN.

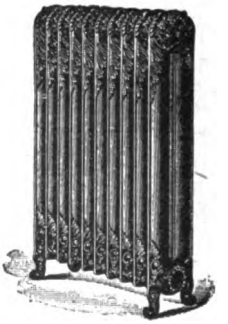

FIG. 1129.

BUFFALO STANDARD, THREE COLUMN.

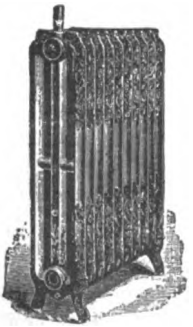

FIG. 1130.

ST. LOUIS STANDARD, THREE COLUMN.

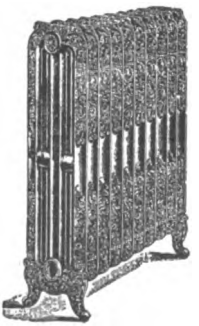

FIG. 1131

PERFECTION.

FIG. 1132.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 457

AMERICAN RADIATORS.

IDEAL.

FIG. 1133.

FAVORITE.

FIG. 1134.

VERONA.

FIG 1135.

ITALIAN FLUE.

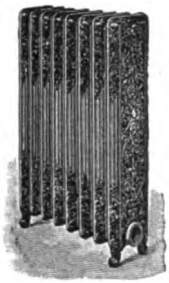

FIG. 1136.

ZENITH FLUE.

FIG. 1137.

AETNA FLUE.

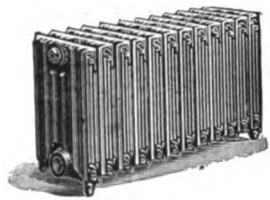

FIG. 1138.

COLONIAL WALL.

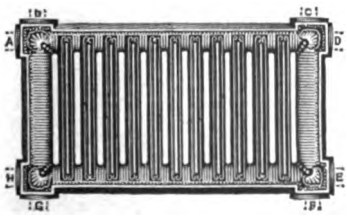

FIG. 1139.

COLONIAL WALL.

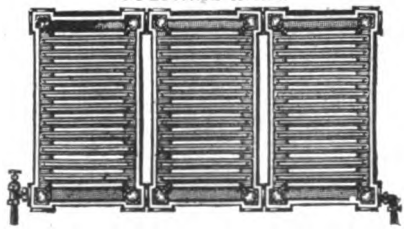

FIG. 1140.

When ordering Colonial Wall Radiators specify whether sections are to be erected horizontally or vertically; in single rows or in series; whether for steam or water; show by sketch at what points pipe connections are to be made, see Fig. 1139

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

AMERICAN RADIATORS.

PERFECTION CURVED.

FIG. 1141.

When ordering Curved Radiators specify exact radius desired; accompany by a sketch showing which end is for supply and return, facing inside of the curve.

ITALIAN FLUE BOX.

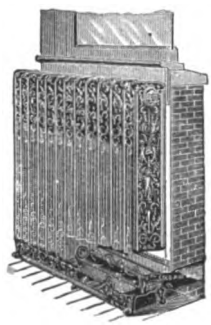

FIG. 1142.

NATIONAL DIRECT INDIRECT.

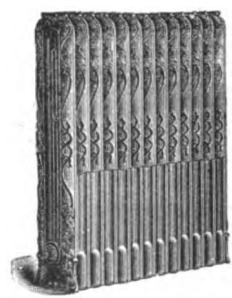

FIG. 1143.

DETROIT CIRCULAR.

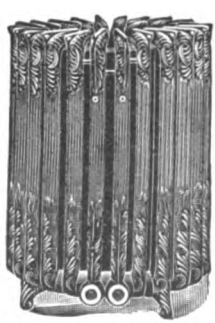

FIG. 1144.

PERFECTION DINING ROOM.

FIG. 1145.

Circular Radiators are made in halves with clamps for holding together; each half is provided with supply and return tapping. Will be fitted with lugs for marble tops when so ordered.

Dining Room Radiators: The upper portion contains two shelves, 20¾x 13 inches, 9 inch space between shelves. The lower closet contains one shelf the same size as those in the upper closet.

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THE W. M. PATTISON SUPPLY CO. 459 CLEVELAND

UNITED STATES RADIATORS.

For Steam or Water.

CHAUTAUQUA PLAIN.

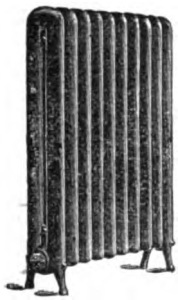

FIG. 1146.

CHAUTAUQUA ORNAMENTAL.

FIG. 1147.

TRITON SINGLE COLUMN.

FIG. 1148.

TRITON TWO COLUMN.

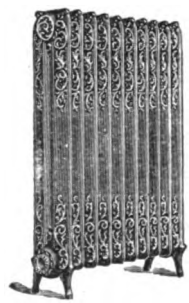

FIG. 1149.

TRITON THREE COLUMN.

FIG. 1150.

TRITON FOUR COLUMN.

FIG. 1151.

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THE W. M. PATTISON SUPPLY CO. 460 CLEVELAND

Direct Radiators

Height, ... inches.	45	44	38	33	32	31	30	28	26	25
Price, ... per square foot.	.41	.41	.42	.46	.46	.46	.46	.48	.50	.50
Ætna Flue, steam or water	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Buffalo Standard Single-Column, Ornamental, steam or water	.....	3½	3	.....	2½	.....	.....	.....	2	.....
Buffalo Standard Single-Column, Plain, steam	.....	3½	3	.....	.....	.....	.....	.....	2	.....
Buffalo Standard Single-Column, Plain, water	.....	.....	3	.....	2½	.....	.....	.....	2	.....
Buffalo Standard Two-Column, Ornamental and Plain, steam and water	5	.....	4	.....	3⅛	.....	.....	.....	2⅝	.....
Buffalo Standard Three-Column, Ornamental and Plain, steam and water	.....	6	5	.....	4½	.....	.....	.....	3¾	.....
Buffalo Standard Four-Column, Ornamental, steam or water	.....	9	8	.....	6⅝	.....	.....	.....	5½	.....
Excelsior (with cast-iron top) steam	.....	.....	4	.....	.....	3½	.....	.....	.....	2⅝
Favorite, steam	5	.....	4	.....	.....	.....	3½	.....	.....	.....
Ideal, steam	5	.....	4	.....	3½	.....	.....	.....	2⅝	.....
Italian Flue, steam and water	.....	.....	7	.....	5¾	.....	.....	.....	4½	.....
National Single-Column, steam and water	.....	.....	3	.....	2½	.....	.....	.....	2	.....
National Two-Column, steam and water	5	.....	4	.....	3½	.....	.....	.....	2⅝	.....
National Four-Column, steam or water	.....	.....	8	.....	6⅝	.....	.....	.....	5½	.....
Peerless Single-Column steam and water	.....	.....	3	.....	2½	.....	.....	.....	2	.....
Peerless Two-Column, steam and water	5	.....	4	.....	3⅛	.....	.....	.....	2⅝	.....
Peerless Three Column, water	.....	.....	5	.....	.....	.....	.....	.....	3¾	.....
Peerless Four-Column, steam or water	.....	.....	8	.....	6⅝	.....	.....	.....	5½	.....
Perfection, steam	5	.....	4	.....	3½	.....	.....	.....	2⅝	.....
Perfection, water	5	.....	4	.....	3⅛	.....	.....	.....	2⅝	.....
Rococo Ornamental and Plain, steam and water	.....	6	5	.....	4½	.....	.....	.....	3½	.....

Height, ... inches.	24	23	22	20	19	18	16	15	14	13
Price, ... per square foot.	.49	.53	.53	.57	.57	.58	.60	.62	.64	66
Ætna Flue, steam or water	.....	.....	.....	6	.....	5½	4⅜	.....	4	3⅝
Buffalo Standard Single-Column, Ornamental, steam or water	.....	.....	1⅝	1½	.....	1¼	.....	.....	.....	.....
Buffalo Standard Single-Column, Plain, steam	.....	.....	.....	1½	.....	.....	.....	.....	.....	.....
Buffalo Standard Single-Column, Plain, water	.....	.....	1⅝	.....	.....	.....	.....	.....	.....	.....
Buffalo Standard Two-Column, Ornamental and Plain, steam and water	.....	.....	.....	2	.....	.....	.....	.....	.....	.....
Buffalo Standard Three-Column, Ornamental and Plain, steam and water	.....	.....	3	2¾	.....	2¼	.....	.....	.....	.....
Buffalo Standard Four-Column, Ornamental, steam or water	.....	.....	4	3½	.....	3	.....	.....	.....	.....
Excelsior (with cast-iron top) steam	.....	.....	2⅛	.....	2	.....	.....	.....	.....	.....
Favorite, steam	2⅔	.....	.....	.....	.....	2	.....	.....	.....	.....
Ideal, steam	.....	2⅛	.....	2	.....	.....	.....	.....	.....	.....
Italian Flue, steam and water	.....	.....	.....	3¼	.....	.....	.....	.....	.....	.....
National Single-Column, steam and water	.....	1⅝	.....	1½	.....	.....	.....	.....	.....	.....
National Two-Column, steam and water	.....	2⅛	.....	2	.....	.....	.....	.....	.....	.....
National Four-Column, steam or water	.....	4⅜	.....	4	.....	.....	.....	.....	.....	.....
Peerless Single-Column, steam and water	.....	1⅝	.....	1½	.....	.....	.....	.....	.....	.....
Peerless Two-Column, steam and water	.....	2⅛	.....	2	.....	.....	.....	.....	.....	.....
Peerless Three-Column, water	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Peerless Four-Column, steam or water	.....	4⅜	.....	4	.....	.....	.....	.....	.....	.....
Perfection, steam	.....	2⅛	.....	2	.....	.....	.....	.....	.....	.....
Perfection, water	.....	.....	.....	2	.....	.....	.....	.....	.....	.....
Rococo, Ornamental and Plain, steam and water	.....	.....	3	.....	.....	2¼	.....	.....	.....	.....

Figures in the above columns opposite names of radiators indicate the amount of heating surface contained in each section according to heights given.

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THE W. H. PATTISON SUPPLY CO. 461 CLEVELAND

Direct Radiators.

Height ....inches	45	44	38	33	32	31	30	28	26	25
Price....per square foot	.41	.41	.42	.46	.46	.46	.46	.48	.50	.50
St. Louis Standard Single-Column, Ornamental, steam or water	.....	3½	3	.....	2½	.....	.....	.....	2	.....
St. Louis Standard Single-Column, Plain, steam or water	.....	.....	3	.....	.....	.....	.....	.....	.....	.....
St. Louis Standard Two-Column, Ornamental and Plain, steam and water	5	.....	4	.....	3⅛	.....	.....	.....	2⅜	.....
St. Louis Standard Three-Column, Plain and Ornamental, steam and water	.....	6	5	.....	4½	.....	.....	.....	3¾	.....
St. Louis Standard Four-Column, Ornamental, steam or water	.....	9	8	.....	6⅜	.....	.....	.....	5⅛	.....
St. Louis Standard Four-Column, Plain, steam or water	.....	9	8	.....	6⅜	.....	.....	.....	.....	.....
St. Louis Window, steam or water	.....	.....	.....	.....	..	.....	.. ..	.....	.....	.....
Verona, steam and water	.....	.....	4	....	3⅛	.....	.....	.....	2⅜	..
Zenith Flue, steam and water	.....	.....	7	6	.....	.....	.....	5	.....	.....
Zenith Narrow, steam and water	.....	.....	4½	4	.....	.....	.....	3¼	.....	.....
Zenith Window, steam or water	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Height ....inches	24	23	22	20	19	18	16	15	14	13
Price.... per square foot	.49	.53	.53	.57	.57	.58	.60	.62	.64	.66
St. Louis Standard Single-Column, Ornamental, steam or water	.....	.....	.....	.. ..	.....	.....	.....	.....	.....	.....
St. Louis Standard Single-Column, Plain, steam or water	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Louis Standard Two-Column, Ornamental and Plain, steam and water	.....	.....	.....	2	.....	.....	.....	.....	.....	.....
St. Louis Standard Three-Column, Ornamental and Plain, steam and water	.....	.....	3	2¾	.....	2¼	.....	...	.....	.....
St. Louis Standard Four-Column, Ornamental, steam or water	.....	.....	4	3½	.....	3	.....	.....	.....	.....
St. Louis Standard Four-Column, Plain, steam or water	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Louis Window, steam or water	.....	.....	... .	.....	.....	.....	.....	3	.....	.....
Verona, steam and water	.....	...	.....	2	.....	.....	.....	.....	.....	.....
Zenith Flue, steam and water	.....	4	.....	.....	.....	.....	.....	.....	.....	.....
Zenith Narrow, steam and water	.....	2¾	.....	.....	.....	.....	.....	.....	.....	.....
Zenith Window, steam or water	.....	.....	.....	6	.....	5⅛	4⅜	.....	4	.....

Figures in the above columns opposite names of radiators indicate the amount of heating surface contained in each section according to heights given.

Indirect Radiators.

	Price per Section.		Price per Section.
Cardinal, steam or water, 15 square feet	4.05	Primus, water, 8 square feet	2.16
Excelsior, steam and water, 12 square feet	3.24	Sanitary Pin, steam or water, 20 square feet	5.40
Excelsior Jr., steam, 8 square feet	2.16	Standard Pin, steam or water, 12 square feet	3.24
Perfection Pin, Extra Large, steam or water, 15 square feet	4.05	Standard Pin, steam or water, 15 square feet	4.05
Perfection Pin, Standard Size, steam or water, 10 square feet	2.70	Sterling, steam or water, 20 square feet	5.40

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

AMERICAN RADIATORS.

Dining Room Radiators.

Number.	DETROIT, 38 INCHES HIGH. Length, Inches.	Heating Surface, Square Feet.	Price, Steam, Each.	Price, Water, Each.	PERFECTION, 38 INCHES HIGH. Length, Inches.	Heating Surface, Square Feet.	Price, Steam or Water, Each.	ROCOCO, 44 INCHES HIGH. Length, Inches.	Heating Surface, Square Feet.	Price, Steam or Water, Each.
00	.....	.....	.....	.....	25	13	38.00	.....	.....	.....
0	.....	.....	.....	.....	30	21	43.00	.....	.....	.....
1	30 1/16	33 1/2	42.00	48.00	35	29	48.00	22 1/2	43 1/2	53.00
2	34 11/16	42	46.00	52.50	40	37	53.00	27 1/2	55 1/2	58.00
3	39 5/16	50 3/4	50.00	57.00	45	45	58.00	32 1/2	67 1/2	63.00
4	43 15/16	59 1/2	54.00	61.50	50	53	63.00	37 1/2	79 1/2	73.00
5	48 9/16	68	58.00	66.00	55	61	68.00	42 1/2	91 1/2	83.00
6	53 3/16	76 3/4	62.00	70.50	60	69	73.00	47 1/2	103 1/2	93.00
7	57 13/16	85 1/2	66.00	75.00	65	77	78.00	52 1/2	115 1/2	103.00
8	62 7/16	94	70.00	79.50	.....	.....	.....	57 1/2	127 1/2	113.00
9	67 1/16	102 3/4	74.00	84.00	.....	.....	.....	.....	.....	123.00
10	71 11/16	111 1/2	78.00	88.50	.....	.....	.....	.....	.....	133.00

Colonial Wall Radiators.

Size.....inches	16 3/4 x 13 1/4 x 2 5/8	23 x 13 1/4 x 2 5/8	29 x 13 1/4 x 2 5/8
Heating Surface, Square Feet.	5	7	9
Price, Per Square Foot.....	.42	.42	.42

Specialties.

Prices to be Added to Prices of Direct Radiators.	Steam.	Water.
Price, Circular and Curved.....per section	.58	.92
Price, Corner.....per corner	3.80	4.75
Price, Window.....per section	.16	.32
Price, Stairway.....per section	.34	.....
Price, Direct-Indirect.....per section	.20	.20
Price, High or Low Legs; other than regular heights.....per leg, section	.53	.53
Price, Carpet Feet Attachment.....each	1.00	1.00
Price, Perfection Radiator Tops.....per section	.15	.15
Price, Saddles for Pierce Plant Radiators.....per pair	.50	.50

Box Bases and Wall Boxes for Italian Flue and Zenith Radiators.

For Radiators....sections	3	4	5	6	7	8	9	10	11	12
Price.....each	1.20	1.60	2.00	2.40	2.80	3.20	3.60	4.00	4.40	4.80

Cold Air Wall Box 5 x 17 1/2 inches, $2.80 each.

Pedestals.

Size....inches	1/2, 3/4, 1	1 1/4	1 1/2, 1 3/4	2, 2 1/4, 2 1/2	3, 3 1/2	4, 4 1/2	5, 5 1/2	6, 6 1/2	7, 7 1/2	8, 8 1/2, 9
Price, each	.10	.12	.14	.20	.24	.30	.32	.36	.40	.44

Floor Dampers for Perfection and Rococo Direct-Indirect Radiators.

Number.....	5	9	12	15	18	20
Length.....inches	11	21 1/2	29 1/4	37	44 3/4	50
For Radiators .....sections	6, 7, 8	9, 10	13, 14	15, 16, 17	18, 19, 20	21 to 30
Air Area.....square inches	20	47	67	88	108	122
Price.....each	2.50	3.00	3.50	4.00	5.00	6.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 463

AMERICAN RADIATORS.

Tappings.

Steam, One-Pipe Work.

Radiators containing 24 square feet and under	1 inch
Above 24, but not exceeding 60 feet	1¼ inch
Above 60, but not exceeding 100 feet	1½ inch
Above 100 square feet	2 inch

Steam, Two-Pipe Work.

Radiators containing 48 square feet and under	1 x ¾ inch
Above 48, but not exceeding 96 feet	1¼x1 inch
Above 96 square feet	1½x1¼ inch

Hot Water, Supply and Return.

Radiators containing 40 square feet and under	1 inch
Above 40, but not exceeding 72 square feet	1¼ inch
Above 72 square feet	1½ inch

Measurements.

NAME OF RADIATOR.	Width, Inches.		Length occupied in Stack by each Section, Inches.
Directs.	Legs.	Intermediate Sections.	
Aetna Flue	12½	12½	*3
Buffalo Single-Column	5⅛	5⅛	2½
Buffalo Two-Column	8½	7¼	2½
Buffalo Three-Column	9⅛	8⅞	2½
Buffalo Four-Column	12	11⅝	2½
Excelsior, 38 Inch	8⅝	7¼	*2
Favorite	9¼	7¼	2⅜
Ideal, 38 Inch	8½	7⅜	*2½
Italian Flue	8⅛	8⅛	*3
Italian Flue, Box Base	8½	8½	*3
National Single-Column	5⅛	4⅛	*2½
National Two-Column	8½	7⅜	*2½
National Four-Column	11⅞	10½	*2⅝
Peerless Single-Column	5⅛	4⅛	*2½
Peerless Two Column	8½	7⅝	*2½
Peerless Three-Column	10¼	10	*2½
Peerless Four-Column	11½	10½	*2⅝
Perfection	9¼	7¼	*2½
Rococo Ornamental and Plain	10¼	10	*2½
St. Louis Single-Column	6⅛	5½	2½
St. Louis Two-Column	8½	7	2½
St. Louis Three-Column	9½	9	2½
St. Louis Four-Column	12¾	11¾	2½
St. Louis Window	11¾	11 5/16	2½
Verona	8½	8	*2½
Zenith Flue	9½	8½	
Zenith Narrow	6	5⅛	
Zenith Window	12¾	12½	

*To the length of these Radiators add ½ inch for each bushing.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

AMERICAN RADIATORS.

Measurements.

NAME OF RADIATOR.	DISTANCE FROM FLOOR TO CENTER OF TAPPING.				
Directs.	Single Pipe Steam.	Double Pipe Steam.		Water.	
		Supply.	Return.	Flow.	Return.
Aetna Flue	2½	3	2½	3	3
Buffalo Single-Column	5½	5½	Note	5½	5½
Buffalo Two-Column	4½	4½	Note	4½	4½
Buffalo Three-Column	5½	5½	Note	5½	5½
Buffalo Four-Column	5½	5½	Note	5½	5½
Excelsior, 38 inch	4	4½	4	.....	.....
Favorite	Note	Note	Note	4½	4½
Ideal, 38 inch (see note)	4	4½	4	.....	.....
Italian Flue	4	4½	4	4½	4½
Italian Flue Box Base	5½	6	5½	6	6
National Single-Column	4½	4½	4½	4½	4½
National Two-Column	4	4½	4	4½	4½
National Four-Column	4½	4½	4½	4½	4½
Peerless Single-Column	4½	4½	4½	4½	4½
Peerless Two-Column	4	4½	4	4½	4½
Peerless Three-Column	4	4½	4	4½	4½
Peerless Four-Column	4½	4½	4½	4½	4½
Perfection	4	4½	4	4½	4½
Rococo Ornamental and Plain	4	4½	4	4½	4½
St. Louis Single-Column	5½	5½	5	5½	5½
St. Louis Two-Column	Note	4½	4	4½	4½
St. Louis Three-Column	Note	5½	5	5½	5½
St. Louis Four-Column	Note	5½	5	5½	5½
St. Louis Window	Note	3½	3	3½	3½
Verona	4	4½	4	4½	4½
Zenith Flue	Note	4⅜	Note	4⅜	Note
Zenith Narrow	Note	3⅞	Note	3⅞	Note
Zenith Window	Note	3	Note	3	Note

NOTE—Except in Peerless and National Single Column in 32, 26, 23 and 20 inch heights, where tapping is ¾ inch, distance from center of opening to floor is 4⅛ inches. In Buffalo Standard Single column, bottom of double steam return tapping is ¾ inch below center of supply tapping. In Buffalo Standard Two, Three and Four-Column distance in return of double pipe steam tapping is one inch below bottom of supply tapping. In Favorite Radiators, distance from floor to bottom of either supply or return tapping is 3¼ inches for steam. In another than 38-inch Height of Ideal Steam Radiators, tappings are solid, and distance from floor to center of entire supply or return tappings is 4½ inches, except where ¾ inch tapping is required, in which case distance is 4⅛ inches from center of opening to floor. In 32, 22 and 18-inch Rococo Water Radiators, distance from floor to center of tapping is 4 inches, but when ordered legs can be built up to make distance 4½ inches. In St. Louis Two-Column distance from floor to center of tapping, in single pipe work is 4 inches (except 2-inch tapping, in which the distance is 4½ inches). In St. Louis Single, Three and Four Column, distance from floor to center of tapping on single pipe work is 5 inches (except 2-inch tapping, in which the distance is 5½ inches). In St. Louis Window, distance from floor to center of tapping on single pipe work is 3 inches (except 2-inch tapping, in which the distance is 3½ inches). In Zenith Flue, distance from floor to *bottom* of openings for one-pipe and return end of two-pipe work, is 3½ inches. In Zenith Narrow, distance from floor to *bottom* of openings for one-pipe and return end of two-pipe work is 2⅞ inches. In Zenith Window, distance from floor to *bottom* of openings for one-pipe and return end of two-pipe work, is 2 inches.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

UNITED STATES RADIATORS.

Direct Radiators.

Height.....inches	45	44	38	32	26	23	20	18
Price.....per square foot	.41	.41	.42	.46	.50	.53	.57	.58
Chautauqua, Plain.....	5	.....	4	3⅛	2⅜	.....	2	.....
Chautauqua, Ornamental	5	.....	4	3⅛	2⅜	.....	2	.....
Triton, Single-Column...	.....	.....	3	2½	2	.....	1½	.....
Triton, Two-Column.....	.....	5	4	3⅛	2⅜	2⅛	2	1¾
Triton, Three-Column....	.....	6	5	4½	3¾	3	2¾	2¼
Triton, Four Column.....	.....	9¼	8	7	5⅜	4½	4	3½

Figures in the above columns opposite names of radiators indicate the amount of heating surface contained in each section according to heights given.

Tappings.

Chautauqua and Triton 2, 3 and 4 Column.

	Steam, One Pipe Work.	Steam, Two Pipe Work.	Hot Water.
Radiators containing 40 square feet and under.....	1 inch	¾ x ¾	1 x1 inch
Above 40 feet but not exceeding 60 feet.....	1¼ inch	1 x ¾	1¼x1¼ inch
Above 60 but not exceeding 100 feet	1½ inch	1¼x1	1½x1½ inch
Above 100 feet.....	2 inch	1½x1	1½x1½ inch

Triton, Single Column.

Steam, One Pipe Work.		Steam, Two Pipe Work.	
Radiators up to 24 square feet...	1 inch	Radiators up to 48 sq. ft..	1 x ¾ inch
Above 24 to 60 feet.....	1¼ inch	Above 48 to 96 feet.	1¼x1 inch
From 60 to 100 feet.....	1½ inch	Above 96 feet.....	1½x1¼ inch

Triton, Single Column—Hot Water.

Radiators up to 40 sq. ft...	1 x1 inch	Above 72 square feet.....	1½x1½ inch
Above 40 to 72 feet.	1¼x1¼ inch		

Measurements.

NAME OF RADIATOR. Directs.	Distance from Floor to Center of Tapping, Inches.	WIDTH, INCHES. Legs.	WIDTH, INCHES. Intermediate Sections.	Length Occupied in Stack by Each Sections, Inches.
Chautauqua, Plain.....	4⅛	8¼	7¼	2¼
Chautauqua, Ornamental....	4⅛	8¼	7¼	2¼
Triton, Single-Column.	4¼	5¼	4½	2½
Triton, Two-Column.	38 inch 4⅜ Others 4¼	8¼	7¼	2½
Triton, Three-Column..	4¼	10¼	9⅛	2½
Triton, Four-Column...	4¼	13¾	12¾	3

To the length of these Radiators add ½ inch for each bushing.

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AMERICAN RADIATORS.

PRIMUS INDIRECT COMPLETE STACK.

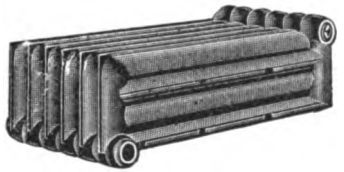

FIG. 1152.

STANDARD INDIRECT COMPLETE STACK.

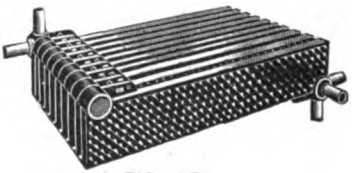

FIG. 1153.

PERFECTION INDIRECT COMPLETE STACK.

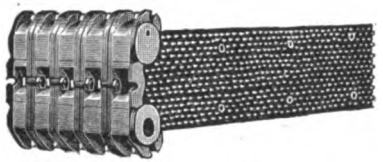

FIG. 1154.

EXCELSIOR INDIRECT.

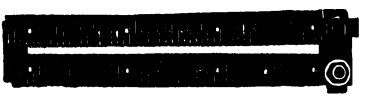

FIG. 1155.

Measurements, Etc

NAME OF RADIATOR. Indirects.	Heating Surface, Square Feet.	Length of Section, Inches.	With Each Section Occupies in Stack, In. †	Extreme Height, Inches.	Regular Tapping, Inches.
Primus Hot Water	8	38	3½	11	*2
Excelsior Jr. Steam	8	23¾	3	8	1½
Excelsior Steam	12	36	3	8	1½
Excelsior Water	12	36¾	3	8	1½
Perfection Flange and Bolt, standard size, Steam or Water	10	36	2½	11½	*2
Perfection Flange and Bolt, extra large size, Steam or Water	15	36	2½	15½	*2
Perfection R. & L. Threaded, standard size, Steam or Water	10	36	2½	11½	*2
Perfection R. & L., Threaded, extra large size, Steam or Water	15	36	2½	15½	*2
Buffalo Standard, Steam or Water	12	41¾	‡2½	10	Solid as Ordered
Buffalo Standard, Steam or Water	15	41¾	‡2½	13	
St. Louis Standard, Steam or Water	12	41¾	‡2½	10	
St. Louis Standard, Steam or Water	15	41¾	‡2½	13	
Cardinal, Steam or Water	15	37¼	3½	11¾	2
Sterling, Steam or Water	20	37	3½	16	*2
Sanitary Pin, Steam or Water	20	36 3/16	4	15 3/16	*2

*These Radiators are all regularly tapped 2-inch and bushed according to list on page 463.

†When greater air space is desired between sections, we can so furnish on special order.

‡End Sections of Buffalo and St. Louis Standard Indirects occupy three inches in stack.

All openings will have right hand threads, unless otherwise ordered (except Excelsior and Cardinal Indirects, return tappings of which are left hand).

All air-valve tappings are regularly made ⅛ inch.

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THE W. M. PATTISON SUPPLY CO. 467 CLEVELAND

ROYAL RADIATOR SHIELDS.

FIG. 1156.

No. Sections or Loops in Radiators.	Wood's Smooth Charcoal Iron. Cast Iron Ends.	Bronzed—Gold, Copper or Aluminum, or Imitation Bower-Barff	Wood's Smooth Charcoal Iron, Nickel-Plated Ends.	Bronzed—Gold, Copper or Aluminum, Nickel-Plated Ends.	Russia Iron, Nickel-Plated Ends.	Genuine Bower-Barff.	Electro Plated-Nickel, Copper or Brass.	Brass—Polished and Lacquered.
10	3.00	4.00	5.00	6.00	8.00	9.00	14.00	15.00
11	3.15	4.25	5.15	6.25	8.30	9.50	15.00	16.00
12	3.30	4.50	5.30	6.50	8.60	10.00	16.00	17.00
13	3.45	4.75	5.45	6.75	8.90	10.50	17.00	18.00
14	3.60	5.00	5.60	7.00	9.20	11.00	18.00	19.00
15	3.75	5 25	5.75	7.25	9.50	11.50	19.00	20.00
16	3.90	5.50	5.90	7.50	9.80	12.00	20.00	21.00
17	4.05	5.75	6.05	7.75	10.10	12.50	21.00	22.00
18	4.20	6.00	6.20	8.00	10.40	13.00	22.00	23.00
19	4.35	6.25	6.35	8.25	10.70	13.50	23.00	24.00
20	4.50	6.50	6.50	8.50	11.00	14.00	24.00	25.00
21	4.65	6.75	6.65	8.75	11.30	14.50	25.00	26.00
22	4.80	7.00	6.80	9.00	11.60	15.00	26.00	27.00
23	4.95	7.25	6.95	9.25	11.90	15.50	27.00	28.00
24	5.10	7.50	7.10	9.50		16.00	28.00	29.00
25	5.25	7.75	7.25	9.75		16.50	29.00	30.00
26	5.40	8.00	7.40	10.00		17.00	30.00	31.00
27	5.55	8.25	7.55	10.25		17.50	31.00	32.00
28	5.70	8.50	7.70	10.50		18.00	32.00	33.00
29	5.85	8.75	7.85	10.75		18.50	33.00	34.00
30	6.00	9.00	8.00	11.00		19.00	34.00	35.00

Add one-half to price for shields extending to floor.

Prices include our Improved Adjustable Clamps for attaching.

Above thirty sections or loops, prices given on application.

Boxing and shipping charged at cost. The price on ten loops or under is the same.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND, O.

REGISTERS.

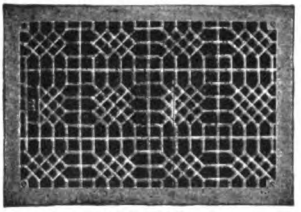

FIG. 1157.
Japanned.

BLACK JAPANNED.				WHITE JAPANNED.	
Size of Opening, Inches.	Price, Register, Each.	Price, Face, Each.	Price, Border, Each.	Price, Register, Each.	Price, Face, Each.
6x 6	1.50	.80	.95	1.80	1.15
6x 8	1.55	.90	1.00	1.85	1.20
6x 9	1.60	.95	1.05	1.90	1.25
6x10	1.60	.95	1.05	1.95	1.30
6x12	1.85	1.15	1.15	2.25	1.50
7x10	1.65	1.00	1.05	2.00	1.30
8x 8	1.60	.95	1.00	1.95	1.30
8x10	1.65	1.00	1.05	2.00	1.35
8x12	1.90	1.15	1.15	2.30	1.55
8x15	3.80	2.45	2.60	4.55	3.20
9x12	2.10	1.35	1.30	2.55	1.80
9x14	3.10	1.70	1.95	3.70	2.30
10x12	2.40	1.50	1.35	2.90	2.00
10x14	3.15	1.75	2.00	3.80	2.40
10x16	4.85	2.75	2.80	5.85	3.70
12x15	4.50	2.70	2.70	5.00	3.60
12x16	5.60	3.00	3.00	6.70	4.10
12x17	6.35	3.50	3.25	7.60	4.75
12x18	6.80	3.70	3.35	8.15	5.00
12x19	7.15	4.00	3.50	8.60	5.40
14x18	9.00	4.25	4.25	10.80	6.00
14x20	9.50	4.50	4.45	11.40	6.40
14x22	10.50	5.00	4.85	12.60	7.10
16x20	12.25	5.70	5.40	14.70	8.15

Electro-Plated, Brass, Bronze or Copper Finished.

Size of Opening Inches.	Price, Register, Each.	Price, Face, Each.	Price, Border, Each.	Size of Opening Inches.	Price, Register, Each.	Price, Face, Each.	Price, Border, Each.
6x 6	4.00	2.20	4.00	10x12	8.30	5.20	6.70
6x 8	4.50	2.60	4.10	10x14	9.70	6.10	7.30
6x 9	4.75	2.80	4.30	10x16	11.10	6.80	8.00
6x10	5.00	3.00	4.50	12x15	12.60	8.00	9.00
6x12	6.00	3.50	5.25	12x16	13.50	9.50	9.50
7x10	5.50	3.10	5.00	12x17	14.30	9.00	9.60
8x 8	4.85	2.85	4.85	12x18	15.10	9.50	10.00
8x10	6.00	3.55	5.10	12x19	16.00	10.10	10.50
8x12	6.50	3.80	5.60	14x18	18.50	12.00	11.50
8x15	8.40	5.40	6.40	14x20	20.50	13.00	12.25
9x12	7.50	4.50	6.10	14x22	22.50	14.50	13.00
9x14	8.70	5.20	6.70	16x20	24.00	16.00	13.90

Other regular sizes of Registers at Standard List. Prices on application.

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THE W. M. PATTISON SUPPLY CO. 469 CLEVELAND

CHICAGO LAUNDRY DRYERS.

COMBINED DRYER AND LAUNDRY STOVE.

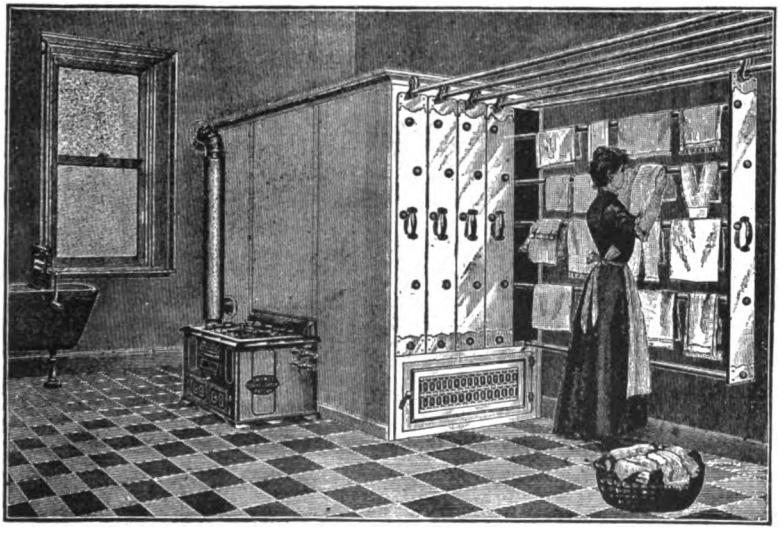

FIG. 1158.

Dimensions.

Number of Racks.....	4	5	6	7	8
Height .....feet	7½	7½	7½	7½	7½
Length .....feet	7	7	7	7	7
Width .....inches	32	41	49	56	66

The Stove in combination, measures 27 inches in height, width and depth.

These Dryers made any desired height or length to suit requirements.

One fire heats water and flat irons, boils and dries the clothes

Dryer can be arranged for steam or hot water when so desired.

Prices on application when accompanied with plans giving measurements of laundry.

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THE W. M. PATTISON SUPPLY CO. 470 CLEVELAND

CHICAGO LAUNDRY DRYERS.

GAS HEATING LAUNDRY DRYER.

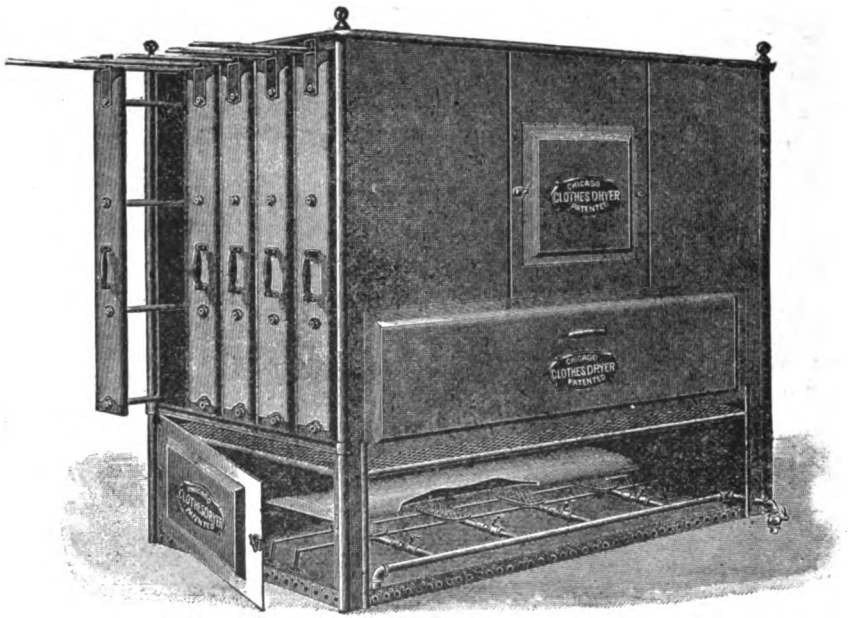

FIG. 1159.

Dimensions: Height, 7 feet. Length, 7 feet. Width, 3 feet 3 inches. Add or deduct 7 inches per rack in width for larger or smaller sizes.

Consumption of gas is about 12 feet per hour.

It is customary to allow one 3 or 4 rack Dryer to each set of laundry tubs.

For use with either artificial or natural gas.

Prices on application when accompanied by measurements.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 471

SECTIONAL PIPE COVERING.

ASBESTOS FIRE FELT.

FIG. 1160.

ASBESTOCEL FIRE PROOF.

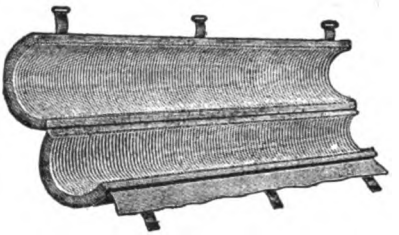

FIG. 1161.

ASBESTOS MOULDED.

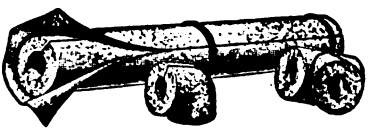

FIG. 1162.

NATIONAL WOOL FELT.

FIG. 1163.

CHAMPION WOOL FELT.

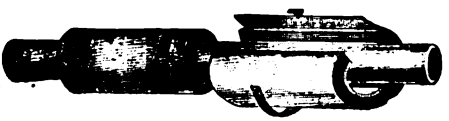

FIG. 1164.

AQUA WOOL FELT.

FIG. 1165.

MINERAL WOOL.

FIG. 1166.

For prices and description see page 472.

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Inside Diameter of Pipe..... inches	½	¾	1	1¼	1½	2	2½	3	3½	4	4½
Price, Per Lineal Foot.....	.20	.22	.23	.24	.25	.27	.31	.36	.40	.44	.47
Price, Elbow Covers..each	.25	.25	.25	.25	.25	.27	.31	.36	.40	.44	.47
Price, Tee Covers.....each	.33	.33	.33	.33	.33	.36	.41	.48	.53	.59	.63
Price, Valve Covers...each	.33	.33	.33	.33	.33	.36	.41	.48	.53	.59	.63

Inside Diameter of Pipe.....inches	5	6	7	8	9	10	12	13	*14	*15	*16
Price, Per Lineal Foot.....	.50	.58	.67	.74	.83	.95	1.10	1.20	1.30	1.45	1.55
Price, Elbow Covers..each	.50	.58	.70	.77	.84	1.00					
Price, Tee Covers.....each	.67	.77	.90	1.00	1.15	1.30					
Price, Valve Covers...each	.67	.77	.90	1.00							

☛ Use Asbestos Cement Felting for fittings larger than 10 inches.

*14, 15 and 16-inch sizes are for outside diameter pipe; larger sizes made to order.

Fire Felt Covering is made of fibrous Asbestos in size to fit ½ to 16-inch pipe. The standard thickness is 1 inch; jacketed with canvas and held in place with metal bands.

Asbestocel Fire proof Covering is constructed of successive layers of plain Corrugated Asbestos Paper; it is made in thicknesses of ½, ¾ and 1 inch; jacketed with canvas and held in place with metal bands.

Asbestos Moulded Covering in sizes to fit ½ to 16-inch pipe, with canvas jacket and lap to be pasted over ends; held in place with metal bands.

National Wool Felt Covering is made of Corrugated Wool Felt, with an interlining of three layers of Asbestos Felt, stitched together with steel wire; furnished without canvas jacket unless so ordered.

Champion Wool Felt Covering, for low pressure work, made of corrugated wool felt ⅝ inch thick with one layer of asbestos; strong sheeting jacket with lap to be pasted over ends; held in place with metal bands.

Aqua Wool Felt Covering, for Hot Water Pipes, made of corrugated wool felt ⅜ inch thick with one layer of asbestos paper.

Mineral Wool Covering, made of best grade of Rock Wool.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

HAIR FELT.

FIG. 1167.

Thickness.....inches	¼	½	¾	1	1¼	1½	2
Price,.....Per Square Foot	.03½	.04	.04¾	.05½	.06½	.08	.10½

Furnished in Rolls of 300 Square Feet, Width 3 or 6 Feet.

Asbesto Sponge Hair Felt.

In Rolls of 500 Square Feet; 5 Feet Wide. ⅜ Inch Thick; Per Square Foot	.10

Asbesto-Sponge Hair Felt is composed of Asbestos Sponge and best Hair; it forms a desirable covering for Steam Pipes, Boilers, Mining Purposes, etc., etc.

85 PER CENT. MAGNESIA BLOCKS.

FIG. 1168.

ASBESTOCEL FIRE PROOF SHEETS.

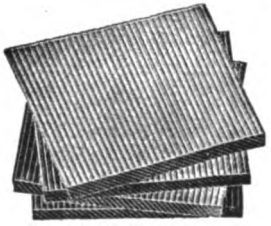

FIG. 1169

ASBESTOS MOULDED BLOCKS.

FIG. 1170.

85 per cent. Magnesia Blocks, for Boilers, Domes, Kettles, Flues, Stacks, Engine Cylinders, etc. Made in slabs and blocks 3x18 and 6x36 inches, any desired thickness.

Asbestocel Fire Proof Sheets, made from successive layers of Asbestocel Paper. They are easily sawed to fit any surface and conform to curves by scoring through a few layers from inner side.

Asbestos Moulded Blocks, for large steam surfaces. Made in blocks 18 inches long by 4 inches wide.

Asbestos Sheet Fire Felt, for Boilers, Drums, Flues and other large surfaces. Made in blocks 6x36 and 24x36 inches. For curved surfaces, made in sheets 18x36 inches curved to a radius of 30 inches which will conform to various radii by moistening the inner side.

Asbesto-Sponge Felted Sheets, for Boilers, Large Pipes, etc., especially adapted for uneven surfaces. All seams may be lapped and joints closed. Made in sheets 24x36 inches, any desired thickness.

List for Sheets and Blocks Discribed Above.

Thickness.....inches	½	1	1½	2	2½	3
Price.....Per Square Foot	.18	.25	.30	.40	.50	.60

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

ASBESTOS PAPER.

FIG. 1171.

Asbestos Roll Fire Felt, in Rolls of 300 Sq. Ft.; 36 in. Wide.

Thickness.....inches	3/32	1/8	1/4
Price.....per square feet	.06	.08	.12

Asbestocel Corrugated Fire Proof Paper.

Thickness.....inches	One Ply, 1/4	Two Ply, 1/2
Square Feet.....per roll	240	120
Price.....per square foot	.05	.08

Asbestos Building Felt, 36 in. Wide.

Grade	Thin.	Medium.	Heavy.	Extra Heavy.
Weight, Per 100 Square Feet.....pounds	about 6	about 10	about 14	16
Square Feet.....per roll	1300 to 1600	800 to 1000	500 to 700	600
Price.....per pound	.06	.06	.06	.06

Non-Burn Asbestos Building Paper; in Rolls of 500 Sq. Ft., 36 in. Wide.

Grade	Thin.	Medium.	Heavy.
Price.....per roll	1.50	2.50	3.50

Asbestos Roll Mill Board; 36 in. Wide.

Thickness.....inches	1/32	1/16	3/32	1/8
Weight, Per 100 Square Feet.....pounds	16	35	45	65
Price, Full Rolls.....per pound	.07	.07	.07	.07
Price, Broken Rolls.....per pound	.10	.10	.10	.10

Extra Quality Asbestos Sheathing; 36 in. Wide.

Thickness.....inches	1/100
Weight.....per roll	50
Price.....per pound	.15

Asbestos Paper Strip.

Size, Width.....inches	1/8 to 36
Price.....per pound	.25

Asbestos Resisto Fire and Damp Proof Paper.

Price.....per pound	.10

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

ASBESTOS CEMENTS, ETC.

ASBESTOS CEMENT.

FIG. 1172.

ASBESTOS CEMENT.

FIG. 1173.

CEMENT FELTING.

FIG. 1174.

MINERAL WOOL.

FIG. 1175.

Asbestos Cement.

Grade	x	x x
Weight Per Bag.....pounds	About 130	About 100
Price.....per bag	2.50	3.75

One Bag contains sufficient Cement to cover about 40 square feet 1 inch thick.

85 Per Cent Magnesia Plastic Cement.

Price, Per Bag of About 60 Pounds.....each	5.00

One Bag contains sufficient Cement to cover 40 square feet 1 inch thick. This Cement is used for the same purpose as Magnesia Block Covering, it is especially recommended for irregular surfaces where it is impossible to use Magnesia Blocks.

Furnace and Retort Cement.

	Cans.	Cans.	Cans.	Cans.	Pails.	Kegs.	Barrels.
Packages.....pounds	1	2	5	10	25 to 50	100 to 300	400 to 600
Price.....per pound	.25	.17½	.12	.10	.06	.05	.04½

Fire Proof Glue.

	½ Pint	1 Pint	1 Quart	1 Gallon	2 Gallon	5 Gallon
Packages.....						
Price.....each	.15	.25	.35	1.00	1.65	3.20

Mineral Wool.

Price.....per ton	25.00

Mineral Wool is shipped in sacks weighing about 50 pounds. Sacks 10 cents extra which will be refunded on their return, freight prepaid. Mineral Wool weighs from eight to nine pounds per cubic foot; ¾ pounds will cover one square foot one inch thick.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

BUILDING PAPER.

FIG. 1176.

Waterproof Sheathing.

Grade	Giant.	Ajax.	Black Rope.	Parchment, 1 Ply.	Parchment, 2 Ply.
Square Feet, per roll	600	600	500	900	500
Price.....per roll	1.05	1.20	1.60	2.00	2.00

Red and Gray Rosin Sized Sheathing.

Grade	AA	A	BB	B	C	D
Square Feet.....per roll	500	500	500	500	500	500
Weight, Per Roll.....pounds	30	38 and 40	30	38 and 40	20	30
Price, Red.....per roll	.87	1.16	.87	1.16	.58	.....
Price, Gray.....per roll	.....	.....	.....	.....	.....	.87

Slaters Felt.		Tarred Roofing Felt.	
Price, 500 Square Feet....per roll	.90	Price, Nos. 1, 2 and 3....per hundred pounds	2.60

Prepared Roofing Paper.

Grade	Giant, 2 Ply.	Giant, 3 Ply.	Ajax, 2 Ply.	Ajax, 3 Ply.
Weight Per Roll....pounds	37	57	44	67
Width.....inches	32	32	32	32
Price.....per roll	1.50	2.00	2.00	2.50

Asphaltum Coating.

Packages	Kegs, 5 to 10 Gallons.	Half Barrels, 20 to 30 Gallons.	Barrels, 35 to 50 Gallons.
Price.....per gallon	.35	.30	.25

Tinned Roofing Caps 10 cents per pound.

We recommend two gallons of Asphaltum Coating, one pound of roofing nails and one and one-half pounds of tin caps to every square of roofing.

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SECTIONAL VIEW.

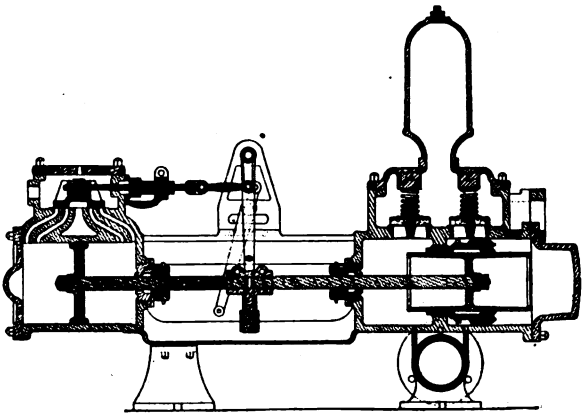

FIG. 1177.

The sectional view above shows interior working parts of Steam Pumps.

These pumps are known as the inside plunger design; and unlike all other plunger pumps, the plungers are packed with a soft, fibrous packing, which, instead of being dragged backward and forward, remains stationary—especially advantageous for handling bad or gritty water. It can be kept tight under all conditions, and is accessible by simply removing the outside head on the pump barrel.

The plunger and piston rods are connected at the center by a compression coupling, which not only adds to the strength of the rods, but makes it possible to use brass rods on one end and steel rods on the other, and either can be taken out or replaced independently.

On the smaller pumps, the steam piston is fitted with a steel ring, which is softer and more elastic than the cast-iron ring. It will be noticed that the principle is adopted of saving the cylinders at the expense of the rings, instead of wearing the cylinders in order to secure longer life to the rings. In the design of the pumps great care has been taken to have all parts readily accessible. The workmanship and finish is unsurpassed.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

DUPLEX OUTSIDE PACKED STEAM PUMP.

POT VALVE PATTERN.

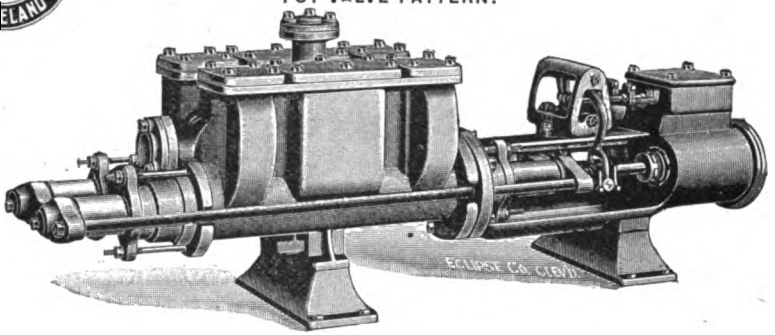

FIG. 1178.

Steam Cylinders. Inches.	Water Cylinders. Inches.	Length of Stroke. Inches.	Displacement per Stroke of one Plunger. Gallons.	Proper Stroke per Minute for Various Kinds of Work and Changing Pressure.	Gallons Delivered per Minute by the Four Plungers at Stated Number of Strokes.	Steam Pipe, Inches.	Exhaust Pipe, Inches.	Suction Pipe, Inches.	Discharge Pipe, Inches.
4½	2	4	.05	100 to 200	10 to 20	½	¾	1½	1¼
6	3	6	.18	100 to 200	36 to 72	1	1¼	2	1½
6	3½	6	.25	100 to 200	50 to 100	1	1½	2½	2
7	3½	8	.33	75 to 150	50 to 100	1½	2	2½	2
7	4	8	.44	75 to 150	66 to 132	1½	2	3	2½
8	4	10	.54	50 to 100	54 to 108	1½	2	3	2½
10	4	10	.54	50 to 100	54 to 108	2	2½	3	2½
10	5	10	.85	50 to 100	85 to 170	2	2½	4	3
10	6	10	1.22	50 to 100	122 to 244	2	2½	5	4
12	5	10	.85	50 to 100	85 to 170	2½	3	4	3
12	6	10	1.22	50 to 100	122 to 244	2½	3	5	4
12	7	10	1.66	50 to 100	166 to 332	2½	3	6	5
14	6	10	1.22	50 to 100	122 to 244	2½	3	5	4
14	7	10	1.66	50 to 100	166 to 332	2½	3	6	5
14	8	10	2.18	50 to 100	218 to 436	2½	3	7	6
16	7	12	2.00	50 to 100	200 to 400	3	4	6	5
16	8	12	2.61	50 to 100	261 to 522	3	4	7	6
16	9	12	3.30	50 to 100	330 to 660	3	4	8	7
16	10	12	4.08	50 to 100	408 to 816	3	4	8	7

These pumps have four outside-packed plungers, which work into the ends of the water cylinders, the latter being in two separate castings, each having a central partition. The water valves are furnished in any composition suitable for the severest requirements and are located in seperate "pots," or chambers, being readily and independently accessible. Ball valves supplied when desired.

These pumps are unequaled for pumping slurry, filter press work, severe mine service, oil pipe lines, or for handling liquids of any kind. They are regularly built for pressure up to 500 pounds.

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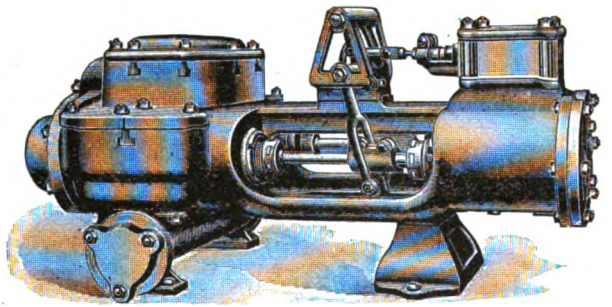

FIG. 1179.

Steam Cylinders, Inches.	Water Plungers, Inches.	Length of Stroke, Inches.	Displacement per Stroke of One Plunger, Gallons.	Proper Stroke per Minute for Various Kinds of Work and Changing Pressure.	Gallons Delivered per Minute by Both Plungers at Stated Number of Strokes.	Steam Pipe, Inches.	Exhaust Pipe, Inches.	Suction Pipe, Inches.	Discharge Pipe, Inches.
3½	2¼	4	.0687	100 to 250	14 to 35	¾	¾	1½	1¼
4	2¾	5	.128	100 to 200	25 to 50	1	1	2	1½
4½	3	5	.152	100 to 200	30 to 60	1	1	2	1½
5¼	3½	5	.208	100 to 200	46 to 92	1¼	1¼	2½	2
6	4	6	.326	75 to 180	49 to 117	1	1½	3	2
6	4½	6	.413	75 to 180	62 to 148	1	1½	4	3
7	4	6	.326	75 to 180	49 to 117	1¼	1½	4	3
7½	4½	6	.413	75 to 180	62 to 148	1¼	1½	4	3
10	5	10	.845	75 to 125	126 to 211	1½	2	4	3
10	6	10	1.224	75 to 125	184 to 306	1½	2	5	4

Sizes are determined by the diameter of steam cylinders, the diameter of pump plungers and the length of stroke.

For brass fitting, which includes brass plungers, plunger rods, stuffing boxes, etc., a slight additional charge is made.

These pumps are designed with large water passages and valve areas, which give ample portage and slight deflection of current, thereby reducing the water friction to a minimum. They are fitted with centrally-packed stuffing boxes of considerable depth, and are designed especially to meet the requirements in pumping thick or gritty liquids; such as tar, wet cement, sewage, graphite, syrups, etc. They can be used for all pressures not exceeding 150 lbs.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

INSIDE PACKED COMPOUND STEAM PUMPS.

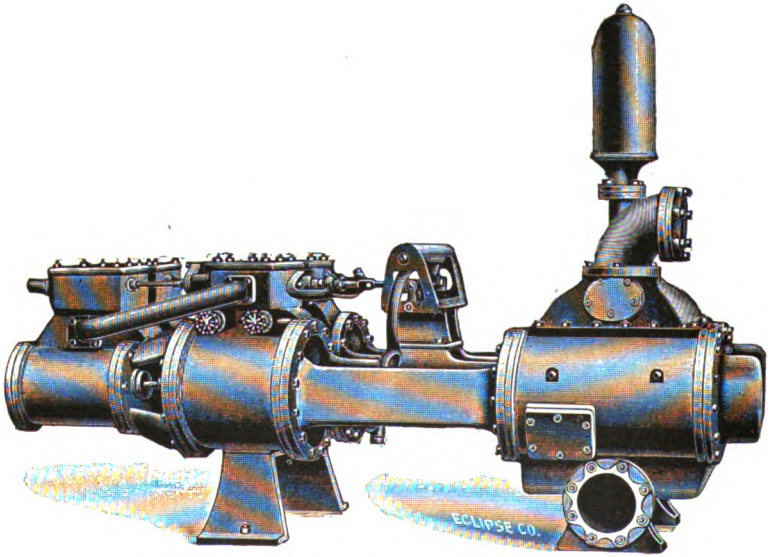

FIG. 1160.

These Pumps are built in any size or combination up to one million gallons capacity for water works service.

Blue Print details on application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 481

STEAM PUMPS AND BOILERS.

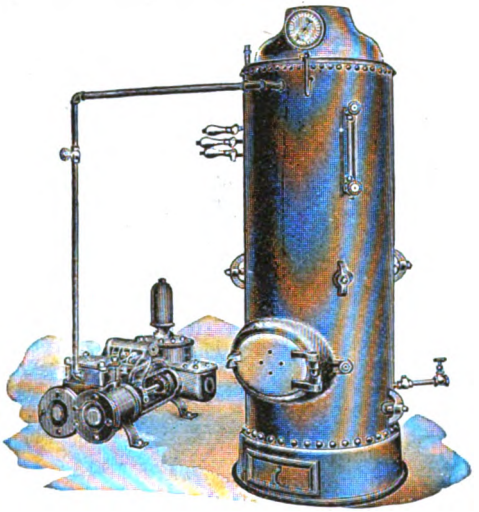

FIG. 1161.

Steam Cylinders. Inches.	Water Plungers. Inches.	Length of Stroke. Inches.	Proper Number of Strokes per Minute for Ordinary Requirements.	Gallons Delivered per Minute by Both Plungers at Stated Number of Strokes.	Diameter of Pipes in Inches				Dimensions of Boiler.				
					Steam Pipe. Inches.	Exhaust Pipe. Inches.	Suction Pipe. Inches.	Discharge Pipe Inches.	Diameter of Shell. Inches.	Height of Boiler. Inches	Number of 2-Inch Tubes.	Length of Tubes. Inches	Horse-Power as Usually Rated.
3½	2½	4	100 to 200	14 to 28	1	¾	1½	1¼	24	48	28	24	4
4½	2½	5	100 to 200	25 to 51	1¼	1	2	1½	24	60	28	36	5
4½	3	5	100 to 200	31 to 62	1¼	1	2	1½	24	60	28	36	5
5½	3½	6	100 to 180	50 to 90	1¼	1¼	2½	2	30	60	48	33	8
6	4	6	80 to 150	54 to 103	1	1¼	3	2½	30	72	48	45	10
6	4½	6	80 to 150	72 to 132	1	1¼	3	2½	30	84	48	57	12
7	4½	7	80 to 130	100 to 165	1¼	1½	4	3	36	78	68	51	15
7½	5	10	80 to 130	136 to 221	1½	2	4	3	36	84	68	57	18
10	6	10	70 to 125	185 to 330	2	2½	5	4	36	96	68	69	20

For brass fitting, which includes brass plungers, plunger rods, stuffing boxes, etc., a slight additional charge will be made.

The boilers are made of the very best open-hearth homogeneous steel, the longitudinal seams of boilers 36 inches and larger in diameter are double riveted. The fixtures which accompany each outfit comprise base, grates, hood, steam and water gauges, gauge cocks, safety valve, blow-off valve, check and stop valves.

This combination of pump and boiler is very easily understood and operated, being designed especially for use at railroad water-supply stations, quarries, irrigating, hotels, country residences, and places where a complete pumping plant is necessary.

The above table includes only sizes suitable for general service. Specifications and prices on larger sizes will be furnished upon application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

AUTOMATIC FEED PUMPS AND RECEIVERS.

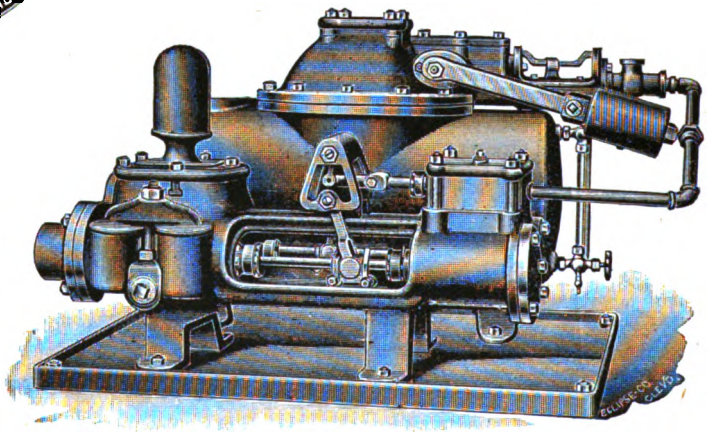

FIG. 1182.

Size.	Size of Pump. Steam Cylinders, Inches.	Water Plungers, Inches.	Length of Stroke, Inches.	Radiating Surface it will Drain, Square Feet.	Space Occupied. Length, Inches.	Width, Inches.	Height, Inches.	Size of Pipes. Steam Pipe, Inches.	Exhaust Pipe, Inches.	Inlet, Inches.	Discharge, Inches.
A	2¾	1¾	3	3000	35	32	18	¾	¾	1¼	1
B	3½	2¼	4	6000	36	32	21	¾	¾	1½	1¼
C	4¼	2¾	5	10000	38	35	23	1	1	2	1½
D	4½	3	5	12000	38	35	23	1	1	2	2
E	5¼	3½	6	20000	43	37	30	1	1¼	2½	2½
F	6	4	6	40000	47	45	33	1	1¼	3	2½
G	7	4½	7	55000	54	47	36	1¼	1½	4	3
H	7½	5	10	65000	60	50	38	2½	2	4	3

The size of pump is determined by the diameter of steam cylinders, the diameter of pump plungers and the length of stroke.

These machines are desirable for receiving the condensation from heating systems; returning it to the boiler automatically without loss of heat. This not only increases the efficiency of the heating plant, but, at the same time, proves a source of economy in fuel consumption.

As the condensation flows into the receiver, the ball-float therein raises, and by means of intermediate connections, opens the steam supply to the pump; the action of the latter feeds the condensed water direct into the boiler without allowing it to cool.

As the water is removed from the receiver, the float lowers, closing the valve governing the steam supply, and gradually lessens the speed of the pump. It will at all times automatically supply to the boilers whatever water may enter the receiver.

They are unequaled for use in hotels, factories, apartment houses, lumber mills, brick and cement plants, etc., etc.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

DUPLEX RACKING OFF STEAM PUMPS.

PUMP WITHOUT RECEIVER.

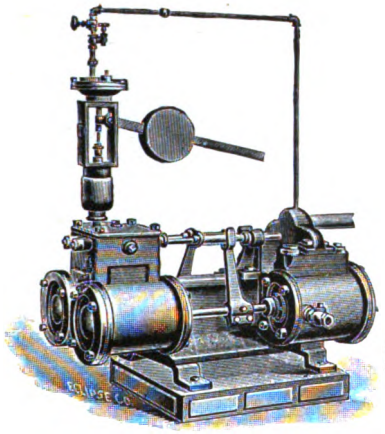

FIG. 1183.

PUMP AND RECEIVER COMBINED.

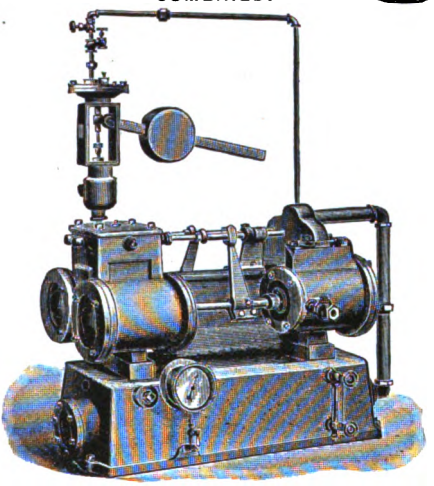

FIG. 1184.

Steam Cylinder, Inches.	Air Cylinders, Inches.	Length of Stroke, Inches	Annual Capacity of Brewery.	Size of Pipes.				Diameter of Receiver, Inches	Length of Receiver, Inches
				Steam Pipe, Inches.	Exhaust Pipe, Inches	Inlet, Inches	Outlet, Inches.		
6	7	6	20000 to 50000 bbls.	1	1¼	1½	1½	19	42
6	8	6	50000 to 100000 bbls.	1	1¼	2	1½	19	42

It is one of the very few duplex air pumps that will take a full stroke under all conditions. Having discarded the usual lever movements, the cut-off valve stems are handled direct from the piston rods; the valve stem on one side moves the cut-off valve for the delivery of steam on the other side, without the use of internal levers, consequently, it has an absolutely positive action.

The valve mechanism is so arranged that the air pistons work against a constant pressure, thus obtaining a smooth and uniform stroke, dispensing with the variations of speed—the objectionable feature of the crank and flywheel tvpe. There being no dead center, the pump will start and stop instantaneously under all conditions.

The pump governor automatically controls the speed, slowing down when the desired air pressure in the receiver is obtained, and gradually starting up when the air pressure is withdrawn—its automatic regulation being perfect.

The entire apparatus is compact, durable and self-contained; no complicated working parts liable to get out of order; and requires little, if any, attention from the engineer.

Furnished with or without steel receiver, as shown by illustration, and in sizes larger than included in the above list, if desired.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

NYE STEAM PUMPS.

FIG. 1185.

SECTIONAL VIEW.

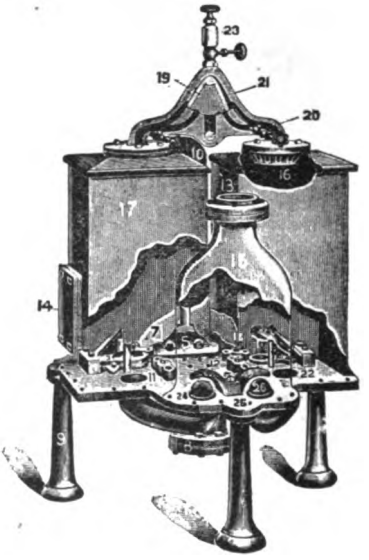

FIG. 1186.

Number.	Suction, Inches.	Discharge, Inches.	Steam Pipe, Inches.	Capacity, Each Cylinder, Gallons.	Gallons per Minute at an Elevation of Feet.		Weight, Pounds.	Price, Each.
					25 Feet.	50 Feet.		
1	2	1½	½	4	80	40	500	150.00
2	3	2	¾	8	200	100	850	225.00
3	4	3	1	16	300	200	1100	300.00
4	5	4	1¼	25	500	400	1600	400.00
5	6	5	1½	37½	800	600	2300	500.00
6	7	6	2	50	1000	800	2800	600.00
7	10	8	2½	140	2000	1500	3500	800.00
8	12	10	3	200	3000	2000	4300	1000.00

The above capacities are estimated on a total height of 25 feet, with 40 pounds steam pressure at the pump. A deduction must be proportionately made on higher elevations, also greater or less quantity according to steam pressure.

These pumps will throw from 50 to 5000 gallons per minute. With live steam they will raise 7500 gallons of water 20 feet high, with 100 pounds of coal. They pump dirty or gritty water equally well or 40 to 60 per cent sand and gravel.

There are no pistons or packings to wear out and no loss of power in overcoming friction. The power is atmospheric pressure produced by condensing the steam. They require no steam pressure, except on a lift above that made by the atmosphere which is 30 feet at the sea level.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

PITCHER SPOUT PUMPS.

FIG. 1187.

FIG. 1188.

Number.	Cylinder, Inches.	Suction, Inches.	Stroke, Inches.	Price, Iron Cylinder, Each.	Price, Porcelain Lined Cylinder, Each.	Price, Brass Lined, Cylinder, Each.	Price, Brass Cylinder, Each.
1	2½	1	4	4.25	6.50	6.50	7.00
2	3	1¼	4	4.75	7.25	7.25	10.00
3	3½	1¼	4	5.25	8.00	8.00	12.00
4	4	1½	4½	6.25	9.00	9.00	14.00
5	4½	1½	5	9.50	12.50	12.50	

HAND FORCE PUMPS.

ON BASE.

FIG. 1189.

ON PLANK.

FIG. 1190.

Number.	Cylinder, Inches.	Suction and Discharge, Inches.	Stroke, Inches.	Price, Iron Cylinder, Each.	Price, Brass Lined Cylinder, Each.	Price, Brass Cylinder, Each.
1	2	1¼	6	9.00	11.50	13.50
2	2½	1¼	6	9.50	12.00	14.00
3	3	1¼	6	11.00	13.50	16.00
4	3½	1½	8	17.00	20.50	24.00
5	4	2	8	18.00	23.00	30.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

HAND FORCE PUMPS.

ON BASE.

FIG. 1191.

ON PLANK.

FIG. 1192.

Number.	Cylinder, Inches.	Suction and Discharge, Inches.	Stroke, Inches.	Price, Iron Cylinder, Each.	Price, Brass Lined Cylinder, Each.	Price, Brass Cylinder, Each.
1	2	1¼	6	12.00	14.50	16.50
2	2½	1¼	6	12.50	15.00	17.00
3	3	1¼	6	14.50	17.00	19.50
4	3½	1½	8	21.50	25.00	28.50
5	4	2	8	22.50	27.50	34.50

ON PLANK.

FIG. 1193.

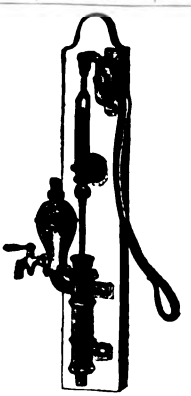

FIG. 1194.

Number.	Cylinder Inches.	Suction and Discharge, Inches.	Stroke, Inches.	Price, Without Air Chamber.			Price, With Air Chamber.		
				Iron Cylinder Each.	Brass Lined Cylinder Each	Brass Cylinder Each	Iron Cylinder Each.	Brass Lined Cylinder Each.	Brass Cylinder Each.
2	2½	1¼	7	15.50	18.00	20.50	20.00	22.50	25.00
4	3	1¼	7	16.50	20.00	23.50	21.00	24.50	28.00
6	3½	1½	7	22.00	26.50	32.00	28.00	32.50	38.00

These pumps can be fitted with Metallic Valves for hot water at 1.50 extra

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ANTI-FREEZING SET LENGTH WELL LIFT PUMPS.

IMPROVED. OPEN TOP.

FIG. 1195.

IMPROVED. CLOSED TOP.

FIG. 1196.

HEAVY; DRIVE WELL. OPEN TOP.

FIG. 1197.

HEAVY; DRIVE WELL. CLOSED TOP.

FIG. 1198.

Improved Set Length Lift Pumps.

Number.	Cylinder, Inches.	Suction, Inches.	Stroke, Inches.	Price, Iron Cylinder, Each.	Price, Porcelain or Brass Lined Cylinder, Each.	Price, Brass Cylinder, Each.
2	2½	1¼	6	7.50	10.00	12.00
3	2¾	1¼	6	7.75	10.25	12.25
4	3	1¼	6	8.00	10.50	12.50

☞ *Add 75 Cents to Above List for Closed Top Pumps.*

Heavy Drive Well Set Length Lift Pumps.

Number.	Cylinder, Inches.	Suction, Inches.	Stroke, Inches.	Price, Iron Cylinder, Each.	Price, Porcelain or Brass Lined Cylinder, Each.	Price, Brass Cylinder, Each.
2	2½	1¼	6	8.50	11.00	13.00
3	2¾	1¼	6	8.75	11.25	13.25
4	3	1¼	6	9.00	11.50	13.50
5	3¼	1¼	6	9.50	12.00	14.00
6	3½	1¼	6	10.00	13.00	15.00
8	4	2	6	11.50	15.00	17.00

☞ *Add 75 Cents to Above List for Closed Top Pumps.*

Heavy Drive Well Pumps can be used in wells 100 to 150 feet deep. Cylinders should be placed near or under the water.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

ANTI-FREEZING SET LENGTH WELL FORCE PUMPS.

IMPROVED FORCE PUMP.

FIG. 1199.

HEAVY DRIVE WELL FORCE PUMP.

FIG. 1200

Improved Set Length Force Pumps.

Number.	Cylinder, Inches.	Suction, Inches.	Stroke, Inches.	Price, Iron Cylinder, Each.	Price, Porcelain or Brass Lined Cylinder, Each.	Price, Brass Cylinder, Each.
3	2¾	1¼	6	12.25	14.75	16.75
4	3	1¼	6	12.50	15.00	17.00
5	3¼	1¼	6	13.00	15.50	17.50
6	3½	1¼	6	13.50	16.50	18.50

If this Pump is wanted with cock on spout, add to above list, 2.50.

Heavy Drive Well Set Length Force Pumps.

Number.	Cylinder, Inches.	Suction, Inches.	Stroke, Inches.	Price, Iron Cylinder, Inches.	Price, Porcelain or Brass Lined Cylinder, Inches.	Price, Brass Cylinder, Each.
3	2¾	1¼	6	14.75	17.25	19.25
4	3	1¼	6	15.00	17.50	19.50
5	3¼	1¼	6	15.50	18.00	20.00
6	3½	1¼	6	16.00	19.00	21.00

Improved and Heavy Drive Well Force Pumps can be used in wells from 75 to 100 feet deep by lowering the cylinder to within about 20 feet of the water or placing the cylinder under the water. When used as an ordinary Lift Pump, the nut or thumb screw on top of air chamber should be loosened.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

ANTI-FREEZING PUMPS.

WIND MILL LIFT PUMP.

FIG. 1201.

WIND MILL FORCE PUMP.

FIG. 1202.

Wind Mill Lift Pumps.

Number.	Cylinder, Inches.	Suction, Inches.	Stroke, Inches.	Price, Iron Cylinder, Each.	Price, Porcelain or Brass Lined Cylinder, Each.	Price, Brass Cylinder, Each.
2	2½	1¼	6	9.00	11.50	13.50
3	2¾	1¼	6	9.25	11.75	13.75
4	3	1¼	6	9.50	12.00	14.00
5	3¼	1¼	6	10.00	12.50	14.50
6	3½	1¼	6	10.50	13.50	15.50

Wind Mill Lift Pumps can be used in wells from 50 to 75 feet deep by lowering the Cylinder to within 15 or 20 feet of water. Rods can be furnished round or flat.

Wind Mill Force Pumps.

Number.	Cylinder, Inches.	Suction, Inches.	Stroke, Inches.	Price, Iron Cylinder, Each.	Price, Porcelain or Brass Lined Cylinder, Each.	Price, Brass Cylinder, Each.
2	2½	1¼	6	13.00	15.50	17.50
3	2¾	1¼	6	13.25	15.75	17.75
4	3	1¼	6	13.50	16.00	18.00
5	3¼	1¼	6	14.00	16.50	18.50
6	3½	1¼	6	14.50	17.50	19.50

Wind Mill Force Pumps can be used in wells from 75 to 125 feet deep.

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PUMP STANDARDS.

Bases Cast On.

Lift Pump Standards.

OPEN TOP.

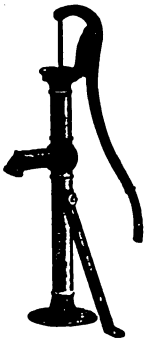

FIG. 1203.

CLOSED TOP.

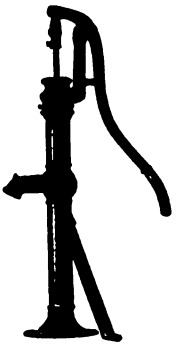

FIG. 1204.

Suction, Inches.	Stroke, Inches.	Price, Open Top, Each.	Price, Closed Top, Each.
1¼	6	4.50	5.25

These Standards are tapped for suction pipe just under the spout. They are for use in wells over 30 feet deep and where cylinders must be placed more than four feet below the platform. Fitted for any size pipe up to 2 inches when so ordered.

These Standards are used in Set Length Pumps, Figs. 1195 and 1196.

Lift Pump Standards.

OPEN TOP.

FIG. 1205

CLOSED TOP.

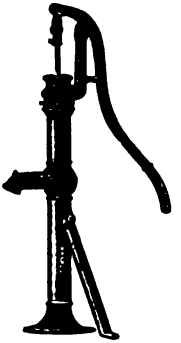

FIG. 1206

No.	Suction, Inches.	Stroke, Inches.	Price, Open Top, Each.	Price, Closed Top, Each.
3	1¼	6	4.75	5.25
4	1¼	6	5.00	5.50
5	1¼	6	5.25	5.75
6	1¼	6	5.75	6.00

These Standards are tapped for suction pipe just under the spout. They are for use in wells 50 feet deep, or more, in connection with our line of iron and brass cylinders. Fitted for any size pipe up to 2 inches when so ordered.

These Standards are used in Set Length Pumps, Figs. 1197 and 1198.

Force Pump Standards.

AIR CHAMBER ON STOCK.

FIG 1207.

AIR CHAMBER ON SPOUT.

FIG. 1208

Suction, Inches.	Stroke, Inches.	Price, Air Chamber on Stock, Each.	Price, Air Chamber on Spout, Each.
1¼	6	9.00	12.00

These Standards are tapped for suction pipe just under the spout. They are for use in wells 30 feet or more in depth. Fitted for any size pipe up to 2 inches when so ordered.

These Standards are used in Force Pumps, Figs. 1199 and 1200.

If Standards are wanted with cock on spout, add to above list 2.50.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 491

WIND MILL PUMP STANDARDS.

LIGHT

FIG. 1209.

MEDIUM.

FIG 1210.

HEAVY.

FIG. 1211.

Lift Pump Standards.

Number.	Suction, Inches.	Stroke, Inches.	Price, Each.	Stroke, Inches.	Suction, Inches.	Price, Each.
3	1¼	6	7.00	.....	.....	.....
4	1¼	6	7.50	10	2	8.50
6	1¼	6	8.00	10	2	9.00

HOSE CONNECTION ON SPOUT.

FIG. 1212.

Force Pump Standards.

Suction, Inches.	Stroke, Inches.	Price, Each.
1¼	6	10.00
2	10	11.00

For Cock on Spout add 2.50 to above list.

These Standards are tapped for suction pipe just under the spout.

COCK ON SPOUT.

FIG. 1213.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

PLUNGERS.

FIG. 1214.

FIG. 1215.

FIG. 1216.

FIG. 1217.

FIG. 1218.

Size, Inches.	A. For 10-inch Cylinders, Each.	G. For 12 and 14-inch Cylinders, Each.	B. For 12 and 14-inch Cylinders, Each.	H. For Cylinders 16 Inches and Longer, Each.	D. For Cylinders 16 Inches and Longer, Each.
2	.50	1.60	1.60	1.75	1.75
2¼	.55	1.60	1.60	2.00	2.00
2½	.60	1.75	1.75	2.25	2.25
2¾	.65	1.75	1.75	2.50	2.50
3	.70	2.00	2.00	2.75	2.75
3¼	.75	2.50	2.50	3.25	3.25
3½	.80	3.00	3.00	3.75	3.75
4	1.00	4.00	4.00	4.75	4.75
4½	1.50	5.25	5.25	6.25	6.25
5	.....	7.00	7.00	8.00	8.00
6	....	10.00	10.00	12.00	12.00

Size, Inches.	PLUNGERS WITH BRASS CAGE AND VALVES AND IRON FOLLOWERS.			ALL BRASS PLUNGERS.		
	A. For 10-inch Cylinders, Each.	G. and B. For 12 and 14-inch Cylinders, Each.	H and D. For Cylinders 16 Inches and Longer, Each.	F. and A.	G. and B.	H. and D.
1½	.....	....	.....	1.50	3.00	3.15
1¾	.....	....	.....	1.50	3.00	3.15
2	1.15	2.50	2.65	1.50	3.00	3.15
2¼	1.15	2.50	2.90	1.50	3.00	3.40
2½	1.25	2.75	3.25	1.60	3.25	3.75
2¾	1.35	2.75	3.50	1.80	3.50	4 25
3	1.50	3.00	3.75	2.00	4.00	4.75
3¼	2.00	3.75	4.50	2.50	5.00	5.75
3½	2.50	4.50	5.25	3.25	6.00	6.75
4	3.00	6.00	6.75	4.00	8.00	8.75
4½	.....	8.00	9.00	.....	10.50	11.50
5	.....	10.50	11.50	... ...	14.00	15.00
6	.....	17.00	17.00	....	20.00	22.00

If any of the above Plungers are wanted with stub rod add 20 cents to list.

A. is the regular short plunger, and is used in 10 inch cylinders. G. plunger has double crimped leather packings, and can be used in cylinders over 10 inches in length. B plungers are used in 12-inch and 14-inch cylinders. H. plunger has four crimped leather packings, and is used in deep well cylinders, 16 inches and longer. D. plunger has a long follower, and is used in deep well cylinders, 16 inches and longer.

When ordering cylinders always state which style of plunger is desired, and whether IRON OR BRASS.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

PUMP CYLINDERS.

OUTSIDE CAPS.

FIG. 1219.

INSIDE CAPS.

FIG. 1220.

Size, Inches. A Plunger.	All Iron, Each	Iron	Brass Body and Brass Lined. Iron Caps.		All Brass, Each.
		Brass Cage and Valve, Each.	Brass Cage and Valve, Iron Fol'er Pl'ng'r, Ea	All Brass Plunger, Each.	
2 x10	3.75	4.50	7.50	8.00	10.75
2¼x10	4.00	4.75	7.75	8.25	11.00
2½x10	4.35	5.35	8.00	8.50	12.25
2¾x10	4.70	5.70	8.50	9.00	12.75
3 x10	5.00	6.25	9.00	9.75	13.50
3¼x10	6.00	7.50	9.75	10.50	14.75
3½x10	7.00	8.75	10.50	11.50	16.75
4 x10	9.00	11.50	13.00	15.50	21.50
4½x10	12.50	15.75	20.00	22.50	30.00
5 x10	16.50	20.50	26.50	30.00	40.00
6 x10	24.00	29.00	40.00	45.00	60.00
B Plunger.					
2 x12	5.50	6.25	8.00	9.25	11.25
2¼x12	5 75	6.50	8.25	9.50	11.50
2½x12	6.00	7.00	8.50	9.75	12.75
2¾x12	6.50	7.50	9.00	10.50	13.25
3 x12	7.00	8.25	9.50	11.00	14.00
3¼x12	8.00	9.50	10.25	12.00	15.25
3½x12	9.00	10.75	11.25	13.75	17.50
4 x12	11.50	14.00	14.25	18.00	22.50
4½x12	15.00	18.25	22.00	26.00	34.00
5 x12	20.00	24.00	30.00	35.00	46.00
6 x12	28.50	33.50	45.00	50.00	65.00
2 x14	6.00	6.75	8.50	9.75	13.00
2¼x14	6.25	7.00	9.00	10.25	13.50
2½x14	6.50	7.50	9.25	10.50	14.75
2¾x14	7.00	8.00	9.75	11.25	15.50
3 x14	7.50	8.75	10.25	11.75	16.25
3¼x14	8.75	10.25	11.00	12.75	17.75
3½x14	10.00	11.75	12.25	14.75	21.00
4 x14	13.00	15.50	15.75	19.00	26.50
4½x14	17.50	20.75	24.00	28.00	36.00
5 x14	22.50	26.50	31.00	38.00	50.00
6 x14	33.50	38.50	50.00	57.00	70.00

Size, Inches. D Plunger.	All Iron, Each.	Iron	Brass Body and Brass Lined. Iron Caps.		All Brass, Each
		Brass Cage and Valve, Each.	Brass Cage and Valve, Iron Fol'er Pl'ng'r. Ea	All Brass Plunger, Each.	
2 x16	6.00	6.75	9.00	10.50	13.75
2¼x16	6.50	7.25	9.75	11.25	14.50
2½x16	7.00	8.00	10.25	11.75	16.00
2¾x16	7.50	8.50	10.75	12.25	16.50
3 x16	8.00	9.25	11.25	12.75	17.25
3¼x16	9.75	11.25	12.00	14.00	19.00
3½x16	11.25	13.00	13.50	16.00	22.25
4 x16	14.50	17.00	17.50	20.50	28.00
4½x16	18.50	21.75	25.00	30.50	38.75
5 x16	25.00	29.00	35.00	42.00	53.50
6 x16	37.50	42.50	55.00	62.00	75.00
8 x16	75.00	85.00	100.00	124.00	150.00
2 x18	6.75	7.50	9.50	11.00	14.25
2¼x18	7.00	7.75	10.50	12.00	15.25
2½x18	7.50	8.50	11.25	12.75	17.00
2¾x18	8.00	9.00	11.75	13.25	17.50
3 x18	8.50	9.75	12.25	13.75	18.25
3¼x18	10.75	12.25	13.00	15.00	20.00
3½x18	12.50	14.25	14.75	17.25	23.50
4 x18	16.00	18.50	19.25	22.25	29.75
4½x18	22.50	25.75	30.00	35.00	43.25
5 x18	30.00	34.00	40.00	47.00	58.50
6 x18	42.50	47.50	60.00	67.00	80.00
8 x18	90.00	100.00	115.00	134.00	160.00
2 x20	7.50	8.25	10.00	11.50	14.75
2¼x20	8.00	8.75	11.25	12.75	16.00
2½x20	8.50	9.50	12.25	13.50	17.75
2¾x20	9.00	10.00	12.75	14.25	18.50
3 x20	9.50	10.75	13.25	14.75	19.25
3¼x20	11.50	13.00	14.00	16.00	21.00
3½x20	13.50	15.25	16.25	19.00	25.25
4 x20	17.00	19.50	21.00	24.00	31.50
4½x20	25.00	28.25	34.00	39.50	47.75
5 x20	34.00	38.00	45.00	52.00	63.50
6 x20	50.00	55.00	65.00	72.00	85.00
8 x20	100.00	110.00	125.00	144.00	170.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

PUMP LEATHERS, ETC.

LOWER VALVE.

FIG. 1221.

PLAIN PLUNGER.

FIG. 1222.

CRIMPED PLUNGER.

FIG. 1223.

Size.....inches	3 and smaller	3¼ and 3½	4	4½	5	6
Price, Lower Valve....per doz.	1.50	2.00	2.50	3.00	4.50	5.50
Price, Plain Plunger...per doz.	1.50	2.00	2.50	3.00	4.50	5.50
Price, Crimped Plunger, per doz.	2.00	2.50	3.00	3.50	5.00	6.00
Price, Ring Packing...per doz.	1.00	1.50	2.00	2.50	4.00	5.00

Pump Leather: In Sides.

Price, Best Oak Tanned.....per pound	1.50

Strainers.

WITH MALE THREAD.

FIG. 1224.

WITH FEMALE THREAD.

FIG. 1225.

WITH SET SCREW.

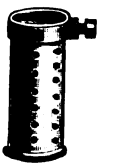

FIG. 1226.

Size.....inches	1	1¼	1½	2	2½	3
Price, Plain, Male or Female Thread.....each	.40	.50	.75	1.00	1.50	2.00
Price, Galvanized, Male or Female Thread, each	.50	.75	1.00	1.50	2.00	2.50
Price, Galvanized and Covered, Male or Female Thread..each	.75	1.00	1.50	2.00	2.50	3.00
Price, Plain, with Set Screw.....each	.50	.60	.85	1.10	1.65	2.25
Price, Galvanized, with Set Screw, each	.60	.85	1.10	1.65	2.25	2.75
Price, Galvanized and Covered, with Set Screw...each	.85	1.10	1.65	2.25	2.75	3.25

ROD COUPLING.

FIG. 1227.

DRIVE CAP.

FIG. 1228.

Rod Couplings.

	Price, Plain, per Pound.	Price, Galvanized, per Pound
Size, Inches, ⅜, ⅜ x 7/16, 7/16, ½.....	.30	.40

Drive Caps.

Size.....inches	1¼	1½	2	2½	3	4
Price.....each	.20	.24	.44	1.00	1.25	1.50

Steel Pump Rod.

Price, Polished; ⅜, 7/16 and ½ inch.....per pound	.10
Price, Galvanized; ⅜, 7/16 and ½ inch.....per pound	.12

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 495

BRASS JACKET DRIVE WELL POINTS.

Made of Galvanized Wrought Pipe.

FIG. 1229.

Trade No.	Inside Diam. Inches	Length of Pipe. Inches.	Length of Jacket, Inches.	No. of Holes.	PRICE, PER DOZEN.				
					No. 60 Gauze.	No. 70 Gauze.	No. 80 Gauze.	No. 90 Gauze.	No. 100 Gauze.
74	1	24	18	72	33.00	40.00	46.00	52.00	62.00
76	1	30	24	96	42.00	49.00	56.00	64.00	78.00
78	1	36	30	120	51.00	59.00	66.00	76.00	94.00
80	1	42	36	144	60.00	68.00	76.00	88.00	120.00
82	1	48	42	168	69.00	78.00	86.00	100.00	136.00
84	1	54	48	197	78.00	87.00	96.00	112.00	152.00
86	1¼	20	14	80	30.00	36.00	42.00	50.00	64.00
90	1¼	24	18	100	36.00	44.00	52.00	60.00	80.00
94	1¼	30	24	130	46.00	55.00	64.00	75.00	100.00
98	1¼	36	30	165	56.00	66.00	76.00	90.00	120.00
100	1¼	42	36	200	66.00	77.00	88.00	105.00	140.00
102	1¼	48	42	270	76.00	88.00	100.00	120.00	160.00
106	1¼	54	48	260	86.00	99.00	112.00	135.00	180.00
110	1¼	60	54	290	96.00	110.00	124.00	150.00	200.00
112	1¼	66	60	320	106.00	121.00	136.00	165.00	220.00
114	1¼	72	66	350	116.00	132.00	148.00	180.00	240.00
136	1½	24	18	120	48.00	57.00	65.00	78.00	94.00
140	1½	30	24	162	60.00	70.00	80.00	96.00	118.00
144	1½	36	30	198	72.00	84.00	95.00	114.00	142.00
146	1½	42	36	240	84.00	97.00	110.00	132.00	166.00
148	1½	48	42	276	96.00	111.00	125.00	150.00	188.00
150	1½	54	48	312	108.00	124.00	140.00	168.00	204.00
152	1½	60	54	348	120.00	138.00	155.00	186.00	228.00
154	1½	66	60	384	132.00	151.00	170.00	204.00	252.00
156	1½	72	66	420	144.00	165.00	185.00	222.00	276.00
160	2	24	18	144	75.00	85.00	94.00	110.00	130.00
164	2	30	24	208	90.00	101.00	112.00	132.00	160.00
168	2	36	30	264	105.00	118.00	130.00	154.00	190.00
170	2	42	36	288	120.00	134.00	148.00	176.00	220.00
172	2	48	42	336	135.00	151.00	166.00	198.00	250.00
174	2	54	48	384	150.00	167.00	184.00	220.00	280.00
176	2	60	54	432	165.00	184.00	202.00	242.00	310.00
178	2	66	60	480	180.00	200.00	220.00	264.00	340.00
180	2	72	66	528	195.00	217.00	238.00	286.00	370.00
184	2½	36	30	300	180.00	205.00	230.00	260.00	300.00
188	2½	48	42	360	230.00	265.00	300.00	340.00	400.00
192	2½	60	54	420	280.00	325.00	370.00	420.00	500.00
196	2½	72	66	480	330.00	385.00	440.00	500.00	600.00
200	3	36	30	300	240.00	275.00	310.00	340.00	410.00
204	3	48	42	420	300.00	345.00	390.00	430.00	520.00
208	3	60	54	540	360.00	415.00	470.00	520.00	630.00
212	3	72	66	660	420.00	485.00	550.00	610.00	740.00
216	4	48	36	360	480.00	520.00	560.00	600.00	700.00
220	4	72	60	600	630.00	695.00	760.00	840.00	1000.00
224	4	96	84	840	780.00	870.00	960.00	1080.00	1300.00
228	4	120	108	1080	930.00	1045.00	1160.00	1320.00	1600.00

Open End or Well Extension Points same List as Above.

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BRASS JACKET TUBULAR WELL POINTS.

FIG. 1230.

Trade No.	Inside Diam., Inches	Length of Pipe, Inches	Length of Jacket, Inches.	No. of Holes.	PRICE, PER DOZEN.				
					No. 60 Gauze.	No. 70 Gauze.	No. 80 Gauze.	No. 90 Gauze.	No. 100 Gauze.
73	1	30	18	72	34.00	40.00	45.00	50.00	55.00
75	1	36	18	72	38.00	44.00	50.00	56.00	66.00
75½	1	36	24	96	43.00	49.00	55.00	62.00	77.00
77	1	42	24	96	47.00	54.00	60.00	68.00	82.00
77½	1	42	30	120	52.00	59.00	65.00	74.00	93.00
79	1	48	30	120	56.00	63.00	70.00	80.00	98.00
79½	1	48	36	144	61.00	68.00	75.00	86.00	109.00
81	1	54	36	144	65.00	73.00	80.00	92.00	114.00
81½	1	54	42	144	70.00	78.00	85.00	98.00	125.00
83	1	60	42	168	74.00	82.00	90.00	104.00	130.00
116	1¼	24	18	100	36.00	44.00	52.00	60.00	86.00
117	1¼	30	18	100	41.00	49.00	57.00	65.00	85.00
117½	1¼	30	24	130	46.00	55.00	64.00	75.00	100.00
118	1¼	36	24	130	51.00	60.00	68.00	80.00	105.00
119	1¼	42	24	130	56.00	65.00	73.00	85.00	110.00
120	1¼	48	24	130	61.00	70.00	78.00	90.00	115.00
121	1¼	36	30	165	56.00	66.00	76.00	90.00	120.00
122	1¼	42	30	165	61.00	71.00	80.00	95.00	125.00
123	1¼	48	30	165	66.00	76.00	85.00	100.00	130.00
124	1¼	54	30	165	71.00	81.00	91.00	105.00	135.00
125	1¼	42	36	200	66.00	77.00	88.00	105.00	140.00
126	1¼	48	36	200	71.00	82.00	92.00	110.00	145.00
127	1¼	54	36	200	76.00	87.00	97.00	115.00	150.00
128	1¼	60	36	200	81.00	92.00	102.00	120.00	155.00
130	1¼	54	42	230	81.00	92.00	104.00	125.00	165.00
130½	1¼	60	42	230	86.00	98.00	110.00	130.00	170.00
131	1¼	66	42	230	91.00	103.00	115.00	135.00	175.00

WASHER DRIVE WELL POINTS.

FIG. 1231.

Trade No.	Inside Diam., Inches.	Length of Pipe, Inches.	No. of Holes.	PRICE, PER DOZEN.				
				No. 60 Gauze.	No. 70 Gauze.	No. 80 Gauze.	No. 90 Gauze.	No. 100 Gauze.
300	1¼	20	50	30.00	36.00	42.00	50.00	64.00
301	1¼	24	60	36.00	44.00	52.00	60.00	80.00
302	1¼	30	80	46.00	55.00	64.00	75.00	100.00
303	1¼	36	100	56.00	66.00	76.00	90.00	120.00
304	1¼	42	120	66.00	77.00	88.00	105.00	140.00
305	1¼	48	140	76.00	88.00	100.00	120.00	160.00
320	1½	24	80	48.00	57.00	65.00	78.00	94.00
321	1½	30	110	60.00	70.00	80.00	96.00	118.00
322	1½	36	130	72.00	84.00	95.00	114.00	142.00
323	1½	42	150	84.00	97.00	110.00	132.00	160.00
324	2	30	140	90.00	101.00	112.00	132.00	160.00
325	2	36	170	105.00	118.00	130.00	154 00	190 00
326	2	42	220	120.00	134.00	148.00	176.00	220.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 497

HYDRAULIC RAMS.

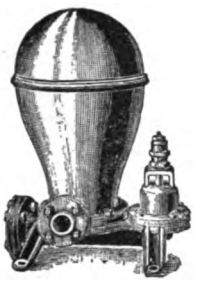

FIG. 1232.

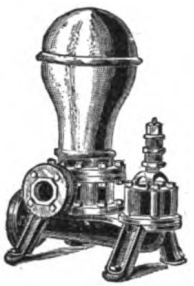

FIG. 1233.

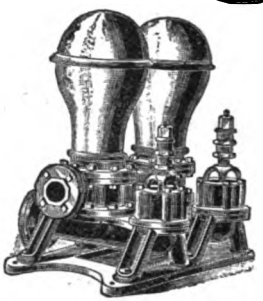

FIG. 1234.

Number.	Discharge. Inches.	Drive Pipe, Inches.	Supply per Minute to Operate Ram, Gallons.	Length of Drive Pipe, Feet.	Price, With Leather Valve, Each	Price, With Brass Spring Valve, Each
2	½	¾	1 to 2	50 to 75	9.00	
3	½	1	2 to 4	50 to 75	11.00	
4	¾	1¼	3 to 7	50 to 100	14.00	
5	1	2	6 to 10	50 to 150	22.00	
6	1¼	2½	11 to 25	50 to 200	40.00	
7	1½	3	20 to 40	50 to 200	75.00	
8	2	4	25 to 75	50 to 200	125.00	
6	1¼	2½	11 to 25	50 to 200		45.00
7	1½	3	20 to 40	50 to 200		80.00
8	2	4	25 to 75	50 to 200		130.00
** 6	1½	2½	22 to 50	50 to 200		90.00
** 7	2	3	40 to 80	50 to 200		160.00
** 8	2½	4	50 to 150	50 to 200		260.00

To Deliver Water to Height Above Ram, Feet	Place Ram Under Head of Fall, Feet.	Conducted Through Drive Pipe Feet.	*Any size Ram may be operated under these conditions and will afford the following approximate delivery.
20	3	† 30	No. 2 Require 2 to 3 Gal. per Min. and Del. 10 to 15 Gal. per Hr.
30	4	30	No. 3 Require 2 to 4 Gal. per Min. and Del. 10 to 20 Gal. per Hr.
40	5	40	No. 4 Require 3 to 7 Gal. per Min. and Del. 15 to 35 Gal. per Hr.
50	7	50	No. 5 Require 6 to 12 Gal. per Min. and Del. 30 to 60 Gal. per Hr.
60	8	60	No. 6 Require 11 to 20 Gal. per Min. and Del. 65 to 100 Gal. per Hr.
80	10	80	No. 7 Require 18 to 35 Gal. per Min. and Del. 90 to 175 Gal. per Hr.
100	14	100	No. 8 Require 30 to 60 Gal. per Min. and Del. 150 to 300 Gal. per Hr.
120	17	125	

† When necessary head of fall cannot be had in length of drive pipe given the same results can be secured by conveying water any distance necessary and placing an open stand pipe in line of drive pipe at point 50 to 75 feet (as required) from ram.

* It is assumed that the smaller rams will not be selected for extreme high lift as the friction loss of water in a small drive and discharge pipe renders this use impracticable. ** Size marked thus are Double Rams.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

PAINT AND WHITEWASH SPRAYERS.

PAINT SPRAYER.

FIG. 1235.

WHITEWASH AND CALCIMINE SPRAYER, GRADE A.

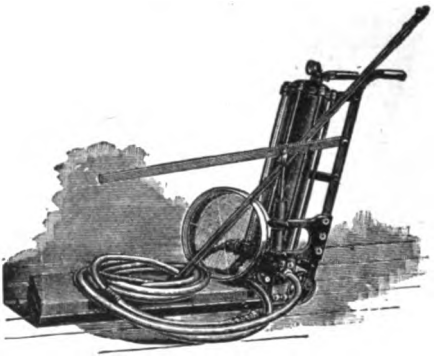

FIG. 1236.

Cold Water Paint Sprayers.

Capacity.....gallons	5	10
Price.....each	20.00	35.00

Oil and Lead Paint Sprayers.

Capacity.....gallons	5	10
Price.....each	35.00	60.00

Whitewash and Calcimine Sprayers.

Grade.....	C.	B.	A.
Price.....each	25.00	50.00	75.00

Grade C. This sprayer has no truck but stands on a base complete with cast iron tank, iron pump, brass valves and cocks, 8 feet of suction and 25 feet of delivery hose.

Grade B. This sprayer is the same pattern as grade A, except with iron pump and the tank is of galvanized steel. We supply with this sprayer 10 feet of suction and 25 feet of delivery hose. Three nozzles and all unions and cocks.

Grade A. This sprayer consists of a strong rivited steel tank 8 inches in diameter and about 36 inches long, strengthened by 6 long steel bolts. The pump barrel and all valves is composed of the best gun metal. We supply with this sprayer 12½ feet of suction and 50 feet of delivery hose. Three different nozzles, circular strainer, unions and cocks all complete.

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FIG. 1237

Length.....feet	6	8	10
Suction Valve.....inches	3½	3½	3½
Discharge.....inches	3	3	3
Price.....each	3.75	4.75	5.75

These Pumps can be furnished any desired length at 50 cents per foot additional.

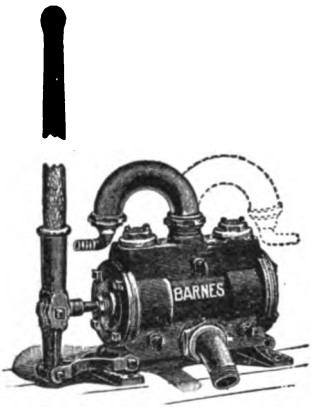

FIG. 1238.

Double Acting Thresher Tank Force Pump.

Cylinder, Inches.	Suction, Inches.	Discharge, Inches.	Stroke, Inches.	Price, With Strainer, Each.
5	2 inch Hose or Pipe.	1 inch Hose or 2 inch Pipe.	5	18.00

Price, with 15 feet of 2 inch spiral wired suction hose; 10 feet of 1 inch, 3 ply rubber discharge hose; clamps, suction strainer and nozzle, all complete.....each	40.00
Price, with 20 feet of 2 inch spiral wired suction hose; 10 feet of 1 inch, 3 ply rubber discharge hose; clamps, suction strainer and nozzle, all complete.....each	45.00
Price, with 25 feet of 2 inch spiral wired suction hose; 10 feet of 1 inch, 3 ply rubber discharge hose; clamps, suction strainer and nozzle, all complete.....each	50.00
If pumps are furnished with Brass Lined Cylinders, add to above list.....each	8.00

This pump will discharge about 2½ barrels of water per minute. The goose neck spout is reversible and can be placed in any position. It is anti-freezing and is so arranged that the handle may be operated from either end.

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HYDRAULIC TEST OR PRESSURE PUMPS.

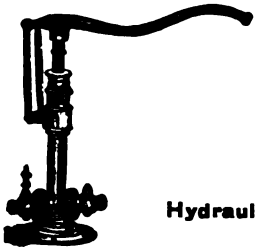

FIG. 1239.

Hydraulic Test or Pressure Pumps.

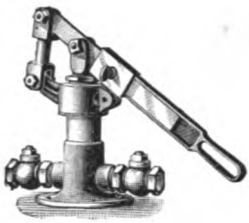

FIG. 1240.

Fig. 1239.

Number.	Diameter of Plunger Inches	Suction, Inches.	Discharge Inches.	Stroke, Inches.	Price Iron, Each.	Price Brass, Each.
1	1¼	1	⅜	4	25.00	45.00

Fig. 1240.

Number.	Diameter of Cylinder, Inches.	Suction and Discharge Inches.	Stroke, Inches.	Price, Single, Each.	Price, Double, Each.
1	1	¾	4	14.00	
2	1½	1	4	16.00	
3	1¾	1¼	6	20.00	60.00
4	2	1½	6	30.00	90.00

CONTRACTOR'S DIAPHRAGM SUCTION PUMP, SIDE SUCTION.

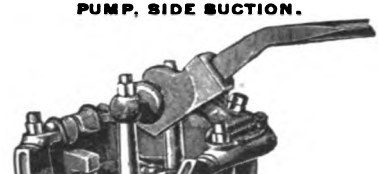

FIG. 1241

CONTRACTOR'S SUCTION PUMP, BOTTOM SUCTION.

FIG. 1242.

Contractor's Diaphragm Suction Pumps.

Diaphragm, Inches.	Suction, Inches.	Approximate Capacity Per Hour.	Price, Bottom Suction For Pipe, Each.	Price, Side Suction For Hose or Pipe, Each.
12½	3	1 Gallon per Stroke. 2500 to 3500	20.00	24.00

Contractor's Suction Pumps.

Cylinder, Inches.	Suction, Inches.	Stroke, Inches.	Capacity, Per Stroke.	Lift, Feet.	Price, Bottom Suction, Each.	Price, Side Suction Each.
6	2½	4	.49	20	23.00	24.00
8½	3	6	1.47	20	30.00	31.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

ROTARY FORCE PUMPS.

ROTARY BARREL FORCE PUMP.

FIG. 1243.

HAND ROTARY FORCE PUMP.

FIG. 1244.

Rotary Barrel Force Pumps.

Number.	Suction Iron Pipe, Inches	Discharge Hose, Inches.	Capacity per Minute, 100 Revolutions, Gallons.	Lift and Force, Feet.	Price, Iron, Each.	Price, Bronze Case and Cams, Each.	Price, *Bronze, Each.
1	1	1	10	60	17.00	39.00	49.00
2	1	1	13	60	20.00	44.00	54.00
3	1¼	1¼	17	60	24.00	49.00	61.00

Hand Rotary Force Pumps.

Number.	Suction, Inches.	Discharge, Inches.	Capacity per Minute, 100 Revolutions, Gallons.	Price, Iron, Each.	Price, Bronze Case and Cams, Each.	Price, *Bronze, Each.
1	1¼	1	13	19.50	41.50	51.00
2	1¼	1¼	25	22.50	46.50	56 00
4	2	1½	29	36.50	67.00	89.00

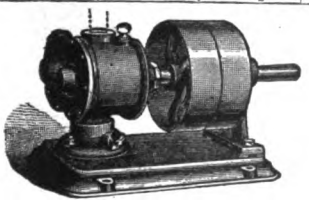

FIG. 1245.

Power Rotary Force Pumps.

Number.	Suction and Discharge, Inches.	Capacity per Minute, 100 Revolutions, Gallons.	Lift and Force, Feet	Pulleys, Inches.	Price, Iron Each.	Price, Bronze Case and Cams, Each.	Price, *Bronze, Each.
1	1¼	10	60	8 x 2½	26.00	48.00	58.00
2	1¼	13	60	8 x 2½	31.00	55.00	63.00
3	1½	17	60	8 x 2½	37.00	62.00	73.00
4	2	27	60	12 x 3½	46.00	76.00	96.00
5	2	36	60	12 x 3½	52.00	88.00	116.00
6	2½	45	60	24 x 4	77.50	132.50	170.00

*Bronze Pumps have all parts coming in contact with the liquid of bronze.

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POWER ROTARY FORCE PUMPS.

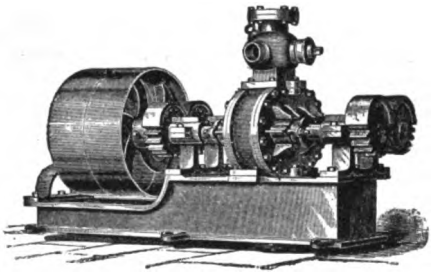

FIG. 1246.

Number.	Suction and Discharge, Inches.	Capacity Per Minute, Gallons.	Pulleys, Inches.	Speed Per Minute, Revolutions.	Price Iron, Each.	Price Bronze Case and Cams, Each.	Price * Bronze, Each.
1	2	29 to 72	14x4½	100 to 250	115.00	155.00	185.00
2	2½	43 to 108	16x5½	100 to 250	130.00	195.00	245.00
3	3	87 to 218	18x6½	100 to 250	185.00	305.00	405.00
4	4	168 to 335	20x8½	100 to 200	275.00	475.00	650.00
5	6	270 to 540	24x8	100 to 200	350.00	600.00	900.00
6	8	342 to 685	28x9	75 to 150	550.00	950.00	1450.00

* Bronze Pumps have all parts coming in contact with the liquid of bronze.

☞ For heavy pressure we furnish a single pulley with broad face or pump with short bed plate, out bored bearing and pulleys of larger diameter at same price.

These pumps have heavy steel shafts, with two pair heavy gears to relieve the cams, running in boxes lined with babbitt metal scraped to a true bearing; the whole mounted on a heavy rigid base with suitable lugs for fastening to foundation or floor. The ends of the teeth in cams that come in contact with the case are packed by bronze blocks inserted into grooves and pressed out by springs, thus insuring perfect vacuum and the taking up of wear. They discharge a large and constant stream without the aid of an air chamber and can be run at high speed without injury. There is no packing or valves to become obstructed or worn. To prevent freezing turn the cams backward two or three times to empty the pumps of water, then pour in some good oil and turn the cams forward two or three times.

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THE W. M. PATTISON SUPPLY CO. 503 CLEVELAND

CENTRIFUGAL PUMPS.

VERTICAL SUBMERGED.

FIG. 1247

SIDE SUCTION.

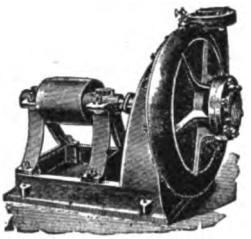

FIG. 1248.

Vertical Submerged Centrifugal Pumps.

Number.	Suction, Inches.	Discharge, Inches.	Capacity, Gallons.	Pulley, Inches.	Couplings Bored for Shaft, Inches.	Price, Iron, Each.	Price, Brass, Each.
1½	2	1½	70	5 x 5	⅞	40.00	70.00
1¾	2	2	90	6 x 5	1	50.00	90.00
2	3	2	120	6 x 6	1⅛	65.00	110.00
2½	3½	2½	185	7 x 6	1⅜	80.00	135.00
3	4	3	265	7 x 8	1⅜	95.00	150.00
3½	4½	3½	360	8 x 8	1⅜	103.00	200.00
4	5	4	470	10 x 8	1⅝	110.00	240.00
5	6	5	735	10 x 10	1⅝	140.00	315.00
6	8	6	1060	14 x 12	1⅝	170.00	360.00
8	10	8	2000	20 x 12	2½	265.00	
10	12	10	3000	24 x 12	2½	330.00	
12	15	12	4300	Special	Special	420.00	
15	18	15	7000	Special	Special	600.00	
18	20	18	10000	Special	Special	950.00	

Side Suction Centrifugal Pumps.

Number.	Suction, Inches.	Discharge, Inches.	Capacity, Gallons.	Pulley, Inches.	Price, Iron, Each.	Price, Brass, Each.	Price, Brass Fitted, Extra, Each.
1½	2	1½	70	5 x 5	45.00	85.00	15.00
1¾	2	2	90	6 x 5	60.00	100.00	18.00
2	3	2	120	6 x 6	75.00	125.00	22.00
2½	3½	2½	185	7 x 6	90.00	150.00	27.00
3	4	3	265	7 x 8	110.00	175.00	30.00
3½	4½	3½	360	8 x 8	120.00	230.00	40.00
4	5	4	470	10 x 8	130.00	275.00	48.00
5	6	5	735	10 x 10	165.00	350.00	72.00
6	8	6	1060	14 x 12	200.00	410.00	108.00
8	10	8	2000	20 x 12	310.00		
10	12	10	3000	24 x 12	395.00		
12	15	12	4300	Special	500.00		
15	18	15	7000	Special	850.00		
18	20	18	10000	Special	1300.00		

Can be furnished with hand primer when so ordered.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CENTRIFUGAL PUMPS.

HORIZONTAL SIDE SUCTION, CONNECTED TO ENGINE.

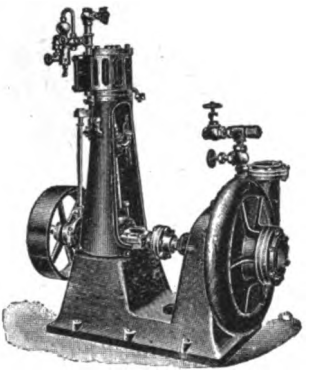

FIG. 1249

SAND AND DREDGING PUMP

FIG. 1250.

Horizontal Side Suction Pumps Connected to Engine.

Number.	Suction, Inches.	Discharge, Inches.	Capacity, Gallons.	For Elevations, Feet.	ENGINE.	
					Cylinder, Inches.	Stroke, Inches.
2	3	2	120	25	3	3½
2½	3½	2½	185	25	3	3½
3	4	3	265	20	3	3½
3	4	3	265	25	4	4½
3½	4½	3½	360	25	4	4½
4	5	4	470	20	4	4½
4	5	4	470	25	4½	4½
5	6	5	735	25	5	6
6	8	6	1060	20	5½	7
6	8	6	1060	25	6½	7
8	10	8	2000	20	7	8
8	10	8	2000	25	8	8
10	12	10	3000	20	9	8

Sand and Dredging Pumps.

Number.	Suction and Discharge, Inches.	Cubic Yards of Solids per Hour, Per Cent of Solids			Horse Power for Each 10 Feet of Elevation.	Diameter of Solids Pump Will Pass, Inches.	Price, Each.
		10%	15%	20%			
4	4	14	21	28	4	2	210.00
6	6	30	45	60	8	4½	300.00
8	8	60	90	120	15	6	475.00
10	10	90	135	180	25	8	600.00
12	12	125	190	250	30	10	850.00
15	15	210	315	420	50	10	1775.00
18	18	300	450	600	70	10	2000.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TRIPLEX POWER PUMPS.

For Elevations to 350 Feet or 150 Pounds Pressure.

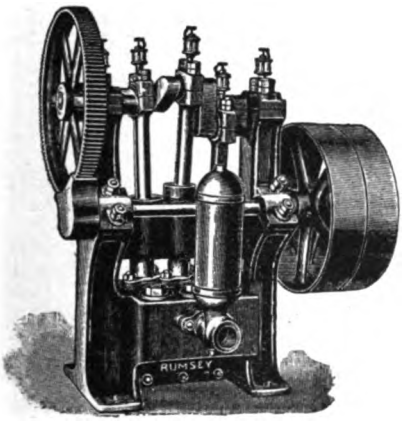

FIG. 1251.

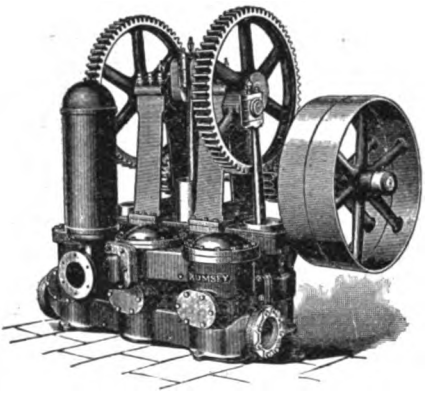

FIG. 1252.

Diameter and Stroke of Plungers, Inches.	Suction, Inches.	Discharge, Inches.	Capacity per Revolution, Gallons.	Capacity per Minute, Gallons.	Revolutions per Minute.	Pulleys, Inches.	Price, Each.
1¾ x 3	1	1	.09	3.6 to 5.4	40 to 60	12 x 2	85.00
2¼ x 4	1¼	1¼	.20	8 to 12	40 to 60	12 x 2½	125.00
3 x 4½	1½	1½	.41	16 to 24	40 to 60	15 x 2½	160.00
3½ x 5	2	2	.62	25 to 37	40 to 60	20 x 3	220.00
4 x 6	2½	2	1.	40 to 60	40 to 60	20 x 4	275.00
*5 x 6	3½	3	1.5	60 to 90	40 to 60	24 x 5	330.00
*5 x 8	3½	3	2	80 to 120	40 to 60	24 x 6	375.00
*6 x 8	4	3½	2.93	117 to 175	40 to 60	28 x 7	490.00
*7 x 8	5	4½	4	160 to 240	40 to 60	28 x 8½	600.00
*8 x 8	6	5	5.22	208 to 313	40 to 60	30 x 10½	700.00
*8 x 10	6	5	6.5	26. to 390	40 to 60	36 x 12½	900.00

* These sizes have reference to Fig. 1252.

Fig. 1251 has single acting plungers, outside packed; with cross heads and guides.

Fig. 1252 has single acting plungers, outside packed; inside guided and connected.

Gear Ratio 5 to 1.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND.

TRIPLEX ELECTRIC PUMPS.

Triplex Electric House Pump.

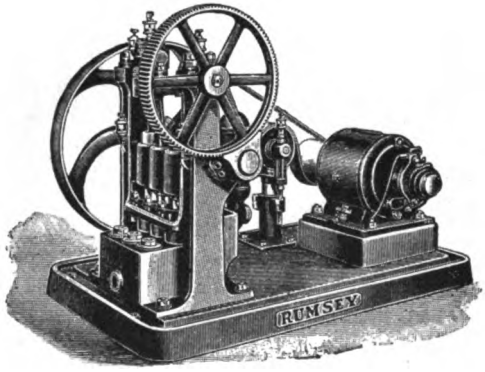

FIG. 1253.

The above illustration shows our outside guided Triplex Pump mounted on iron bed plate and connected by belt running over idler, to electric motor. By use of a float switch, see page 508, which cuts out or turns on the electric current as the water rises and falls in the tank; its action is entirely automatic. The pinion on the pump is of rawhide.

General Service Triplex Electric Pump.

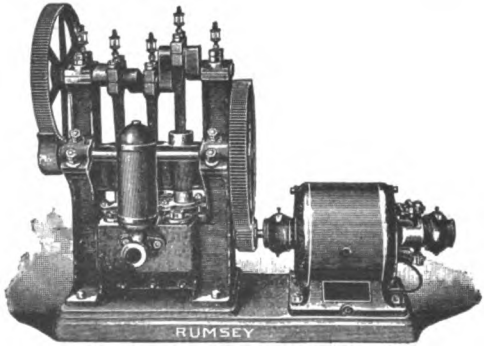

FIG. 1254.

The above illustration shows our outside guided Triplex Pump mounted on iron bed plate and connected by intermediate gearing to electric motor.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TRIPLEX ELECTRIC PUMPS.

Triplex Electric House Pumps.

Diameter and Stroke of Plunger. Inches.	Suction, Inches.	Discharge, Inches.	Capacity per Hour, Gallons.	Elevation Will Raise, Feet.	Motor, Horse Power.	Price, with Bed Plate and Idler, Each.	Price Complete with Bed Plate, Idler, Belt, Direct Current Motor and Float Switch, Each.
1¾x3	1	1	270	100	¾	120.00	235.00
1¾x3	1	1	270	200	1½	120.00	250.00
1¾x3	1	1	270	350	1	120.00	275.00
2¼x4	1¼	1¼	600	100	¾	160.00	305.00
2¼x4	1¼	1¼	600	200	1	160.00	315.00
2¼x4	1¼	1¼	600	350	2	160.00	380.00
3 x4½	1½	1½	1200	100	1	205.00	360.00
3 x4½	1½	1½	1200	200	2	205.00	425.00
3 x4½	1½	1½	1200	300	3	205.00	470.00
3½x5	2	2	1800	100	1½	275.00	460.00
3½x5	2	2	1800	200	3	275.00	540.00
3½x5	2	2	1800	350	5	275.00	635.00
4 x6	2½	2	3000	100	2½	350.00	585.00
4 x6	2½	2	3000	200	5	350.00	710.00
4 x6	2½	2	3000	350	7½	350.00	800.00

General Service Triplex Electric Pumps.

Diameter and Stroke of Plunger, Inches.	Suction, Inches.	Discharge, Inches.	Capacity per Hour, Gallons.	Elevation Will Raise, Feet.	Motor, Horse Power.	Price, Pump with Bed Plate and Gears to Receive Motor, Each.	Price, Pump Complete with Direct Current Motor, Each.
1¾x3	1	1	270	200	½	130.00	235.00
1¾x3	1	1	270	350	1	130.00	260.00
2¼x4	1¼	1¼	600	200	1	175.00	305.00
2¼x4	1¼	1¼	600	350	2	175.00	370.00
3 x4½	1½	1½	1200	100	1	215.00	345.00
3 x4½	1½	1½	1200	200	2	215.00	410.00
3 x4½	1½	1½	1200	300	3	215.00	455.00
3½x5	2	2	1800	100	1½	295.00	455.00
3½x5	2	2	1800	200	3	300.00	540.00
3½x5	2	2	1800	350	5	310.00	645.00
4 x6	2½	2	3000	100	2½	340.00	550.00
4 x6	2½	2	3000	200	5	350.00	685.00
4 x6	2½	2	3000	350	7½	360.00	785.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

AUTOMATIC SWITCHES.

For Electric Pumping.

TYPE, A.

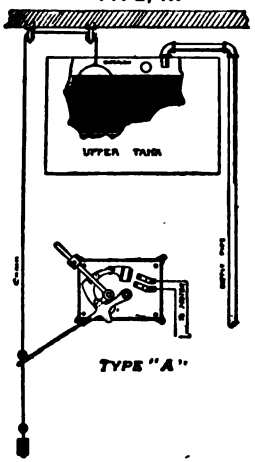

FIG. 1255.

TYPE, D.

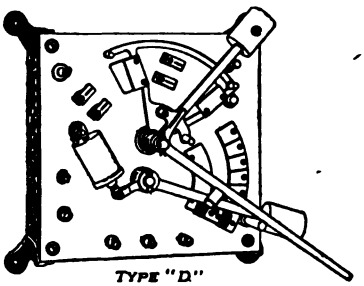

FIG. 1256.

Types	A.	B.	C.
Price, Plain.....each	12.00	14.00	15.00
Price, Polished.....each	15.00	17.00	18.00

Type A. Single pole, maximum volts, 300; maximum amperes, 20; low tension, direct current, automatic switch, adapted for starting series wound motors of one horse power or less.

Type B. Not illustrated, same as type A. only double pole. Can also be used with small, alternating, polyphase motors of not over five horse power and not over 300 volts.

Type C. Not illustrated, double pole, maximum volts, 600; maximum amperes, 15. Can be used for small, series, direct current motors of 600 volts or less and of not over one horse power, can also be used with polyphase, alternating current motors of not over five horse power and not over 600 volts.

Type D. Automatic, double pole, automatic motor starter, with magnetic release, designed for direct current, shunt, series or compound wound motors of one-half to 25 horse power.

Always give size of motor also whether shunt, series or compound. For series or compound wound motors state resistance of series coil.

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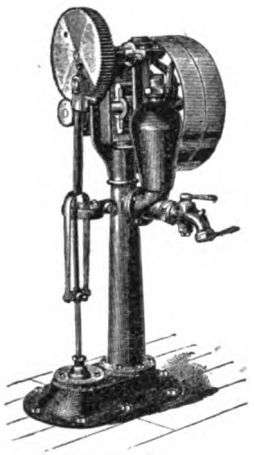
PUMPING STANDARDS AND JACKS.



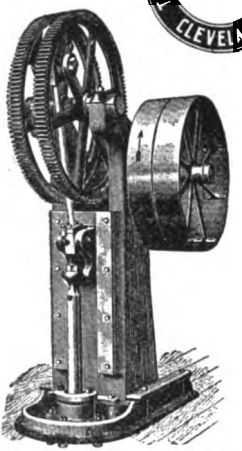


FIG. 1257. **Geared Improved Deep Well Standard.** FIG. 1258.

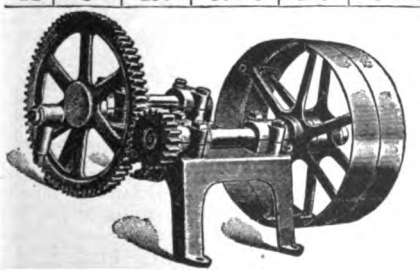
Adjustable Stroke, Inches.	Suction, Inches.	Pulleys, Inches.	Gear Ratio.	Price, Each.
6 to 8	1½	18 x 3	3½ to 1	73.00

Sizes and Capacities of Cylinders to Use with Fig. 1257.

Diameter and Stroke.....inches	2¼ x 8	2¾ x 8	3¼ x 8	3½ x 8	4 x 8	4½ x 8	5 x 8
Height from Water to Delivery..... feet	200	150	125	100	75	60	45
Capacity per Stroke.....gallons	.137	.205	.287	.333	.435	.550	.68

Geared Power Deep Well Pumping Head. Fig. 1258.

Stroke, Inches.	Maximum Cylinder, Inches.	Maximum Elevation, Feet.	Pulleys, Inches.	Speed of Pulley Shaft, Revolutions.	Gear Ratio.	Base, Inches.	Height to Center of Pulley Shaft, Inches.	Weight, Pounds.	Price, Each.
8	4	150	15 x 3	240	6 to 1	14 x 18	21½	250	100.00
16	6	150	24 x 4	210	7 to 1	18½ x 39½	38½	1200	300.00
24	8	150	30 x 5	200	8 to 1	24 x 54	60	2000	500.00



Geared Pumping Jack.

FIG. 1259.

Stroke, Inches.	Speed of Pulley Shaft to Operate Pump 50 Strokes per Minute.	Gear Ratio.	Price Without Pulleys, Each.	Price, with One Pulley, Each.	Price, with Tight and Loose Pulleys, Each.
6, 8 and 10	175	3½ to 1	22.00	24.00	28.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

PLAIN DOUBLE ACTING POWER PUMP.

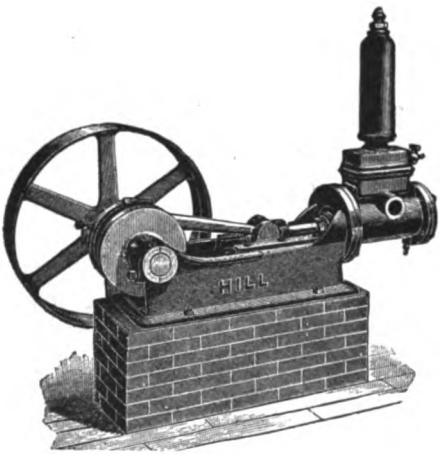

FIG. 1260.

Number.	Water Cylinder, Inches.	Stroke, Inches.	Suction, Inches.	Discharge, Inches.	Capacity per Minute at 50 Revolutions, Gallons.	Pulley, Inches.	Speed, Revolutions	Price, Brass Lined, Inches.
2½	2½	4	1¼	1	8.5	15x3	40 to 70	36.00
3	3	4	1¼	1	12.2	15x3	40 to 70	40.00

This pump is adapted for a variety of places where there is light service and a moderate quantity of water is required. Such as pumping from shallow wells, creeks or springs to a slight elevation. They are praticularly adapted for pumping water for gas or gasoline engines.

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DOUBLE ACTING GEARED POWER PUMP.

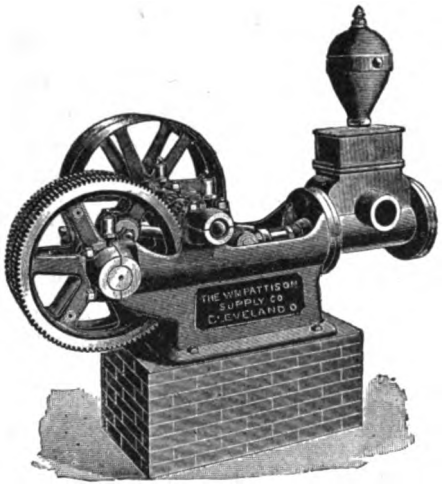

FIG. 1261.

Number.	Water Cylinder, Inches.	Stroke, Inches.	Suction, Inches.	Discharge, Inches.	Capacity per Revolution Gallons.	Pulleys, Inches.	Gear Ratio.	Price, with Brass Valves and Seats, Each.	Price, Brass Lined with Brass Valve and Seats, Each.
4	4	6	2	1½	.65	15x3	5.6 to 1	90.00	100.00
5	5	6	2½	2	1.02	15x3	5.6 to 1	110.00	120.00

This is a powerful double action pump to draw water by suction and force against heavy pressure or to a high elevation. The gears are machine cut, accurate and noisless, cross heads, slides, valves and all parts are of best design and material.

These pumps are of large capacity and adapted to a variety of purposes, all parts readily accessible. Regularly fitted with tight and loose pulleys.

Piston heads fitted with leather cups; packed or ring heads can be furnished when desired.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND, O.

DEEP WELL STEAM PUMPING ENGINE.

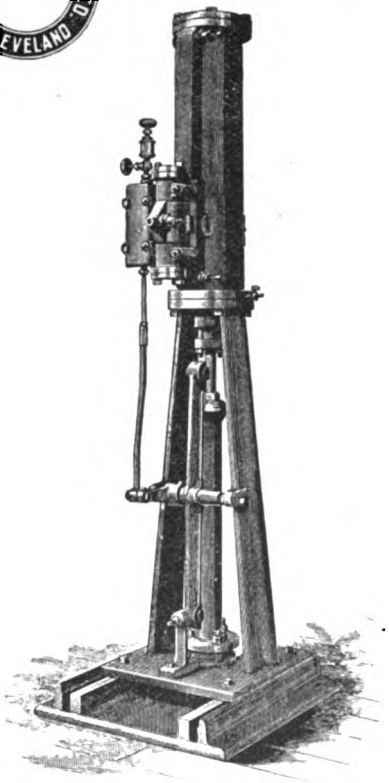

FIG. 1262.

These pumping engines are designed for wells of any kind that are too deep to be worked with a surface or horizontal pump. They are direct acting and long stroke. The valve mechanism is positive and simple in design. They have double ports, one for live the other for exhaust steam with valves for regulating up and down stroke without regard to weight of working parts. All engines are provided with displacement plunger (except when used in connection with a double acting water cylinder) that discharges water on down stroke while the working barrel discharges on up stroke, thus making the flow continuous. By disconnecting plungers from piston at ball and taking out bolts in base the entire engine can be moved back leaving the well open so that the rods and lower valves can be let down or drawn out from the top.

When ordering engines only give size of drop pipe and sucker rod.

Number.	Steam Cylinder, Inches.	Stroke, Inches.	Steam Pipe, Inches.	Exhaust Pipe, Inches.	Height, Inches.	Base, Inches.	Weight, Pounds.	Price, Steam End, Each.
4½	4½	16	¾	1	50	16 x 16	275	140.00
5	5	20	¾	1	63	21 x 21	450	175.00
6	6	25	1	1¼	75	24 x 24	700	225.00
7	6	36	1	1¼	98	24 x 24	850	260.00
8	8	25	1¼	1½	76	26 x 26	950	300.00
9	8	36	1¼	1½	99	26 x 26	1150	325.00
10	10	30	1½	2	90	29 x 35	1500	375.00
11	10	36	1½	2	104	29 x 35	1700	400.00
12	12	36	2	2½	106	32 x 38	2200	500.00

For Brass Piston and Plungers, add 5 per cent. to list.
For Jacketed Cylinder and Brass Bands, add 10 per cent. to list.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

COMBINED CHECK VALVES AND AIR CHAMBERS.

For Discharge Pipes of Pumps.

FIG. 1263.

Size.....inches	1	1¼	1½	2	2½	3	3½	4	5
Price.....each	3.50	5.00	7.50	12.00	14.00	16.00	20.00	24.00	35.00

Sizes 1 to 1¼ inches have brass Check Valves and Iron Chamber, other sizes have Iron Body and Rubber Valves.

WOOD SUCKER RODS AND JOINTS.

FIG. 1264.

Diameter of Rod.....inches	1	1⅛	2¼	3	3½
Size of Box and Pin on Joints.....inches	⅝	⅞	1⅛	1½	1⅞
For Working Barrel...inches	1⅝ to 2¾	2¾ to 4¼	4¼ to 5¾	5¾ to 7¾	5¾ to 9½
Price, Rods with Joints On.....per foot	.10	.20	.50	1.00	1.20
Price, Joints Only...per pair	.25	1.50	4.00	7.50	9.00

VALVE RODS.

FIG. 1265.

For Connecting Plunger of Working Barrels to Wood Sucker Rod.

For Sucker Rod.....inches	1⅛	2¼	3 and 3½
Price.....each	3.00	4.00	6.00

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ARTESIAN WELL CYLINDER.

FIG. 1266.

Standard Brass Artesian Well Cylinders.

These Cylinders are made entirely of brass and are threaded at top and bottom for either pipe or casing but always for pipe unless otherwise ordered. The plunger and lower valve is arranged that they may be drawn out for repairs. The plunger is packed with cup leathers and ball valves. A strainer or well point may be attached to bottom of cylinder and placed at bottom of the well. The cylinder may be placed in open and drilled wells where the pipe or casing is large enough. In ordering give inside diameter of cylinder and length of stroke. These cylinders are heavy and strong enough to work in any depth of well.

For prices and dimensions see page 515.

Special Brass Artesian Well Cylinders.

These cylinders are lighter and shorter than the Standard Cylinders of the same diameter and length of stroke. In workmanship they are the equal of the Standard.

For Prices and Dimensions see page 516.

DEEP WELL WORKING BARREL

FIG. 1267.

Brass Lined Deep Well Working Barrels.

These working barrels are for use in deep wells, mines, &c. They are made by inserting heavy seamless drawn brass tubing into wrought iron pipe with tapered brass socket on the bottom for check valve. The plunger and check is brass with rubber valves. The working barrels are so arranged that the plunger and check may be drawn out from the top. In ordering give inside diameter and length of stroke.

For prices and Dimensions see page 516.

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THE W. M. PATTISON SUPPLY CO. 515 CLEVELAND

STANDARD BRASS ARTESIAN WELL CYLINDERS.

With Brass Ball Valves.

Inside Diameter of Cylinder, Inches.	Stroke, Inches.	Diameter of Pipe or Casing for Top Attachment, Inches.	Diameter of Pipe or Casing for Bottom Attachment, Inches.	Length of Cylinder with Attachments, Inches.	Outside Diameter of Attachments, Inches.	Capacity per Stroke, Gallons.	Price, Complete, Each.
1¾	16	1½	1½	32½	2¾	.10	15.00
1¾	16	2	2	32½	3¼	.17	18.00
2¼	16	2½	2	35	3½	.27	24.00
2¾	16	3	2	42	4	.41	32.00
3¼	16	3½	2½	43	4⅝	.57	50.00
3¾	16	4	3	45	5¼	.77	70.00
2¾	24	3	2	50	4	.61	35.00
3¼	24	3½	2½	51	4⅝	.86	55.00
3¾	24	4	3	53	5¼	1.15	75.00
4¼	24	4½	3	54¼	5⅞	1.47	96.00
4¾	24	5	3	56¼	6⅜	1.84	130.00
*5¼	24	6	3½	57¼	6⅞	2.25	145.00
5¾	24	6	3½	57¼	7½	2.70	170.00
†6¼	24	7	4	60¼	8¼	3.19	200.00
6¾	24	7	4	61¼	8¾	3.72	230.00
2¾	30	3	2	56	4	.77	40.00
3¼	30	3½	2½	57	4⅝	1.08	60.00
3¾	30	4	3	59	5¼	1.43	85.00
4¼	30	4½	3	60¼	5⅞	1.84	110.00
4¾	30	5	3	62¼	6⅜	2.30	135.00
*5¼	30	6	3½	63¼	6⅞	2.81	155.00
5¾	30	6	3½	63¼	7½	3.38	175.00
†6¼	30	7	4	66¼	8¼	3.99	210.00
6¾	30	7	4	67¼	8¾	4.65	250.00
3¼	36	3½	2½	63	4⅝	1.29	70.00
3¾	36	4	3	65	5¼	1.72	90.00
4¼	36	4½	3	66¼	5⅞	1.21	110.00
4¾	36	5	3	68¼	6⅜	2.76	145.00
*5¼	36	6	3½	69¼	6⅞	3.37	175.00
5¾	36	6	3½	69¼	7½	4.06	195.00
†6¼	36	7	4	72¼	8¼	4.78	225.00
6¾	36	7	4	73¼	8¾	5.58	275.00

*5¼ inch cylinders when ordered for casing are fitted for 5⅝ inch at top.

†6¼ inch cylinders when ordered for casing are fitted for 6⅝ inch at top.

Cylinders listed 24 inch stroke can be used in connection with 20 and 25 inch stroke engines.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SPECIAL BRASS ARTESIAN WELL CYLINDERS.

With Bronze Ball Valves.

Inside Diameter of Cylinder. Inches.	Stroke, Inches.	Diameter of Pipe or Casing for Top Attachment, Inches.	Diameter of Pipe or Casing for Bottom Attachment, Inches.	Length of Cylinder with Attachments, Inches.	Outside Diameter of Attachments, Inches.	Capacity per Stroke, Gallon.	Price, Complete, Each.
1¾	10	2	2	24	2¾	.11	17.00
2¼	10	2½	2	25	3¼	.17	22.00
2¾	10	3	2	26	3¾	.26	28.00
3¼	10	3½	2½	29½	4¾	.36	38.00
1¾	16	2	2	30	2¾	.17	18.00
2¼	16	2½	2	31	3¼	.27	24.00
2¾	16	3	2	32	3¾	.41	32.00
3¼	16	3½	2½	35½	4¾	.57	50.00
3¾	16	4	3	37	5¼	.77	70.00
2¼	24	2½	2	39	3¼	.61	27.00
2¾	24	3	2	40	3¾	.61	35.00
3¼	24	3½	2½	43½	4¾	.86	55.00
3¾	24	4	3	45	5¼	1.15	75.00

The 10 inch stroke cylinders can be used with heads having 8 inch stroke.

Brass Lined Deep Well Working Barrels.

Inside Diameter of Cylinder, Inches.	Stroke, Inches.	Diameter of Pipe for Top Attachment. Inches.	Diameter of Pipe for Bottom Attachment. Inches.	Outside Diameter of Coupling, Inches.	Capacity per Stroke, Gallons.	Price, Complete, Each.
2¾	20	3	2	4	.514	30.00
3¼	20	3½	2	4½	.718	42.00
3⅝	20	4	2½	5	.900	50.00
2¾	25	3	2	4	.642	35.00
3¼	25	3½	2	4½	.897	46.00
3⅝	25	4	2½	5	1.120	54.00
4	25	4½	3	5¾	1.360	60.00
4½	25	5	3	6¼	1.721	68.00
5½	25	6	4	7¼	2.571	80.00
2¾	36	3	2½	4	.925	40.00
3¼	36	3½	2	4½	1.293	50.00
3⅝	36	4	2½	5	1.600	59.00
4	36	4½	3	5¾	1.958	72.00
4½	36	5	3	6¼	2.478	86.00
5½	36	6	4	7¼	3.702	100.00
7½	36	8	5	9½	6.700	190.00

We can furnish to order any of the working barrels of different length stroke than listed above. Cylinders 16 and 24 inch stroke same list as those having 20 and 25 inch stroke.

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THE W. M. PATTISON SUPPLY CO. 517 CLEVELAND

ROUND WOOD TANK.

FIG. 1266.

RECTANGULAR WOOD TANK.

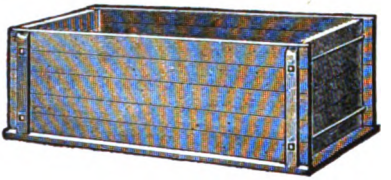

FIG. 1269.

SPECIAL WOOD TANK.

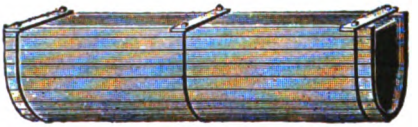

FIG. 1270.

These tanks are furnished in the following woods: White Pine, Tamarack, Cypress, Cedar and California Redwood.

ROUND GALVANIZED STEEL TANK.

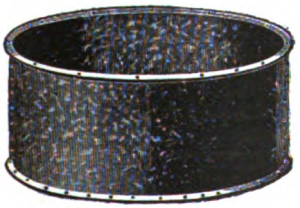

FIG. 1271.

OBLONG GALVANIZED STEEL TANK.

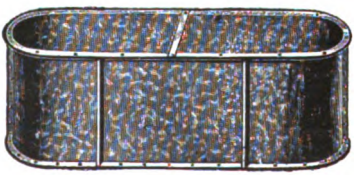

FIG. 1272.

RECTANGULAR GALVANIZED STEEL TANK.

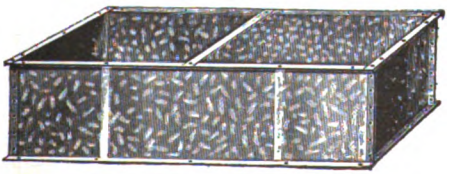

FIG. 1273.

For Dimensions and Prices see pages 518, 519 and 520.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

WOOD TANKS.

Diameter of Bottom, Feet.	Outside Length of Staves, Feet.	2	3	4	5	6	7	8
3	Capacity .. ..barrels	2	4	5	6	7	.....	.....
	Price, White Pine...each	5.00	6.50	8.00	10.00	11.50	.....	.....
	Price, Cypress.....each	7.50	9.75	12.00	15.00	17.25	.....	.....
4	Capacity .....barrels	4	7	9	12	14	16	18
	Price, White Pine...each	7.50	9.50	11.50	14.00	16.00	18.00	20.00
	Price, Cypress.....each	11.25	14.25	17.25	21.00	24.00	27.00	30.00
5	Capacity .....barrels	7	11	15	18	22	26	29
	Price, White Pine...each	10.00	13.00	15.50	18.00	21.00	23.50	26.00
	Price, Cypress.....each	15.00	18.50	23.25	27.00	31.50	35.25	39.00
6	Capacity .....barrels	10	16	22	27	33	38	44
	Price, White Pine...each	13.00	16.00	19.50	23.00	26.00	29.00	32.50
	Price, Cypress.....each	19.50	24.00	29.25	34.50	39.00	43.50	48.75
7	Capacity .....barrels	14	22	30	38	46	53	61
	Price, White Pine...each	16.50	20.50	24.00	28.00	31.50	35.50	39.00
	Price, Cypress.....each	24.75	30.75	36.00	42.00	47.25	53.25	58.50
8	Capacity .....barrels	18	29	40	50	60	71	81
	Price, White Pine...each	20.00	24.50	29.00	33.50	37.50	42.00	46.50
	Price, Cypress.....each	30.00	36.75	43.50	50.25	56.25	63.00	69.75
9	Capacity .....barrels	23	37	51	64	77	90	103
	Price, White Pine...each	24.50	29.50	34.00	39.00	44.00	49.00	53.50
	Price, Cypress.....each	36.75	43.75	51.00	58.50	66.00	73.50	80.25
10	Capacity .....barrels	28	46	64	79	96	112	129
	Price, White Pine...each	29.00	34.50	40.00	45.00	50.50	56.00	61.50
	Price, Cypress.....each	43.50	51.75	60.00	67.50	75.75	84.00	92.25
11	Capacity .....barrels	35	56	77	96	117	137	157
	Price, White Pine...each	34.00	40.00	45.50	51.50	57.50	63.50	69.50
	Price, Cypress.....each	51.00	60.00	73.25	77.25	86.25	95.25	104.25
12	Capacity .....barrels	41	67	93	115	140	164	188
	Price, White Pine...each	39.00	43.50	52.00	58.50	65.00	71.50	78.00
	Price, Cypress.....each	58.50	65.25	78.00	87.75	97.50	107.25	117.00
14	Capacity .....barrels	57	92	126	158	191	225	258
	Price, White Pine...each	50.50	58.00	65.50	73.00	81.00	133.00	143.50
	Price, Cypress.....each	75.75	87.00	88.25	109.50	121.50	199.50	215.25
16	Capacity .....barrels	74	120	166	207	252	296	340
	Price, White Pine...each	63.50	72.00	81.00	134.00	147.00	160.00	173.00
	Price, Cypress.....each	95.25	108.00	121.50	201.00	220.50	240.00	259.50

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

WOOD TANKS.

Diameter of Bottom, Feet.	Outside Length of Staves, Feet.	9	10	11	12	14	16
4	Capacity.....barrels	.....	.....	.....	.....	.....	.....
	Price, White Pine.....each	.....	.....	.....	.....	.....	.....
	Price, Cypress.....each	.....	.....	.....	.....	.....	.....
5	Capacity.....barrels	33	36	.....	.....	.....	.....
	Price, White Pine.....each	29.00	31.50	.....	.....	.....	.....
	Price, Cypress.....each	43.50	47.25	.....	.....	.....	.....
6	Capacity.....barrels	49	54	59	63	.....	.....
	Price, White Pine.....each	36.00	39.00	42.50	45.50	.....	.....
	Price, Cypress.....each	54.00	58.50	63.75	68.25	.....	.....
7	Capacity.....barrels	68	75	82	88	101	.....
	Price, White Pine.....each	43.00	47.00	51.00	54.50	62.00	.....
	Price, Cypress.....each	64.50	70.50	76.50	81.75	93.00	.....
8	Capacity.....barrels	90	100	109	118	136	152
	Price, White Pine.....each	50.50	55.00	59.00	63.50	72.00	81.00
	Price, Cypress.....each	75.75	82.50	88.50	95.25	108.00	126.50
9	Capacity.....barrels	116	128	140	152	175	197
	Price, White Pine.....each	58.50	63.50	68.00	73.00	83.00	92.50
	Price, Cypress.....each	87.75	95.25	102.00	109.50	124.50	138.75
10	Capacity.....barrels	144	160	175	190	219	248
	Price, White Pine.....each	67.00	72.00	77.50	83.00	140.50	156.50
	Price, Cypress.....each	100.50	108.00	116.25	124.50	210.75	234.75
11	Capacity.....barrels	176	195	214	233	269	304
	Price, White Pine.....each	75.50	81.50	130.50	139.50	158.00	175.00
	Price, Cypress.....each	113.25	122.25	195.75	209.25	237.00	262.50
12	Capacity.....barrels	211	235	258	280	324	366
	Price, White Pine.....each	127.00	136.00	146.00	157.50	175.00	195.00
	Price, Cypress.....each	170.50	204.00	219.00	236.25	262.50	292.50
14	Capacity.....barrels	291	323	355	386	448	508
	Price, White Pine.....each	155.50	166.50	177.50	189.00	211.50	234.50
	Price, Cypress.....each	232.00	249.75	266.25	283.50	317.25	351.75
16	Capacity.....barrels	384	426	468	510	587	673
	Price, White Pine.....each	186.00	198.50	211.50	224.50	251.50	276.50
	Price, Cypress.....each	279.00	297.75	317.25	336.75	377.25	414.75

Tanks of California Redwood 10 per cent. in advance of Cypress Tanks.
Round band and and socket lugs same price as riveted bands.
Tanks 200 barrels and over are based on 3 inch material, other sizes 2 inch.
For Ellipse shape tanks straight stave, patent malleable lug hoops, add 25 per cent.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TANKS.

Galvanized Round Steel Tanks.

Number.	Diameter, Feet.	Height, Feet.	Capacity, Barrels.	Price, Each.
1	4	2	6	9.00
2	4	2½	7	10.00
3	4	3	9	11.00
4	4	4	12	13.00
4½	4	8	24	23.00
5	5	2	9½	11.50
6	5	2½	12	14.00
7	5	3	14	15.50
8	5	4	19	19.00
8½	5	5	24	23.00
9	6	2	14	16.50
10	6	2½	17	19.00
11	6	3	20	20.00
12	6	4	27	25.00
43	6	5	34	30.00
60	5	8	37½	34.00
61	8	2	24	24.00
62	8	2½	30	29.00
63	10	2	37½	34.00
64	10	2½	46	40.00

Galvanized Oblong Steel Tanks.

Number.	Width, Feet.	Height, Feet.	Length, Feet.	Capacity, Barrels.	Price, Each.
A 13	2	2	4	3⅓	7.00
C 13	2	2	5	4⅓	8.00
B 13	2	2	6	5⅓	9.00
D 13	2	2	7	6⅓	10.00
13	2	2	8	7⅓	11.00
E 13	2	2	10	9⅓	12.00
14	2	2½	8	9⅓	12.00
15	2½	2	8	9⅓	12.00
16	2½	2½	8	12	13.00
17	3	2	8	12	13.00
18	3	2½	8	14	15.50
19	4	2	8	15	16.50
20	4	2½	8	17	19.00
21	4	3	8	23	23.00
22	3	2	10	14	15.50
23	3	2½	10	18	19.50
24	3	3	10	21	21.50
25	4	2	10	19	20.00
26	4	2½	10	24	24.00
27	4	3	10	29	27.00
44	4	2	16	30	30.00
45	5	2	16	38	35.00
46	6	2	8	23⅓	24.00
47	6	2	10	28⅓	27.00
48	4	5	10	47	39.00
49	6	4	10	56	48.00

Galvanized Rectangular Steel Tanks.

Number.	Width, Feet.	Height, Feet.	Length, Feet.	Capacity, Barrels.	Price, Each.
A 28	2	2	4	3⅓	7.70
B 28	2	2	5	4⅓	8.80
28	2	2	8	7⅓	12.10
C 29	2	2	6	5⅓	9.90
29	2	2½	8	9⅓	13.20
30	2½	2	8	9⅓	13.20
31	2½	2½	8	12	14.30
32	3	2	8	12	14.30
33	3	2½	8	14	17.00
34	4	2	8	15	18.15
35	4	2½	8	17	20.90
36	4	3	8	23	25.30
37	3	2	10	14	17.00
38	3	2½	10	18	21.45
39	3	3	10	21	23.65
40	4	2	10	19	22.00
41	4	2½	10	24	26.40
42	4	3	10	29	29.70

Prices given above are for tanks made of No. 20 galvanized steel; for No. 18 add 20 per cent; for No. 16 add 40 per cent.

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THE W. M. PATTISON SUPPLY CO. 521 CLEVELAND

GALVANIZED IRON TANKS.

AIR TANK.

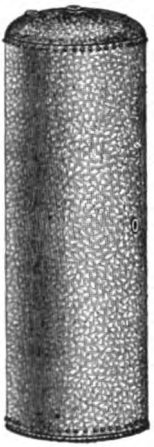

FIG. 1274.

CALCIUM LIGHT TANK.

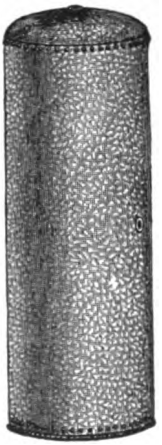

FIG. 1275.

SPECIAL TANK.

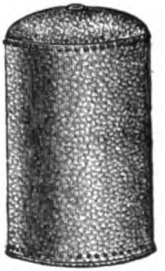

FIG. 1276.

Galvanized Iron Braziers Tanks.

Capacity..gallons	4	4	5	5	6	6	7½	10	12	15
Size..... inches	9x15	10x12	10x15	9x18	12x12	10x18	12x15	12x20	12x24	12x30
Price.....each	6.00	6.00	6.25	6.25	6.50	6.50	7.00	8.00	8.50	10.00

Always send a sketch with order giving size and location of openings.

Galvanized Iron Air Tanks.

Capacity.....gallons	5	6½	8	18	21	24	30	40	52
Size..... inches	8x24	8x30	10x22	12x36	12x42	12x48	12x60	14x60	16x60
Price..... each	6.25	7.00	8.00	14.50	15.50	15.75	19.00	24.00	31.50

Galvanized Iron Calcium Light Tanks.

Capacity..... gallons	18	24	30	40
Size ....inches	12x36	12x48	12x60	14x60
Price.....each	14.50	15.75	19.00	24.00

Galvanized Iron Gasoline Engine Tanks.

Capacity ..... gallons	18	53
Size ....inches	12x36	18x48
Price ..... each	14.50	31.50

Galvanized Iron Special Tanks.

Capacity..... gallons	4	4	5	5	5	6½
Size..... inches	9x15	10x12	8x24	9x18	10x15	8x30
Price..... each	6.00	6.00	6.25	6.25	6.25	7.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

MOTORS AND FANS.

WATER MOTOR

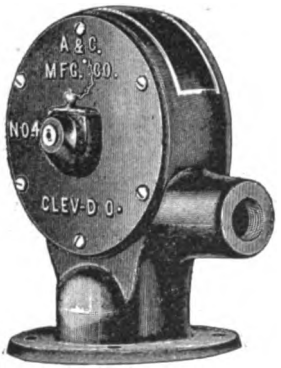

FIG. 1277.

FAN WITH MOTOR.

FIG. 1276.

Water Motors.

Horse Power		¼
Price	each	17.00
Supply Pipe	inches	1
Discharge Pipe	inches	2½
Height	inches	10½
Diameter of Base	inches	7

Furnished with pulleys 1x2½ inch double flanged or 2½ inch for ⅝ round belt. High and low pressure brass nozzles supplied with each motor.

These motors are of a size and speed especially adapted for running generators for Central telephone stations, static machines and other purposes requiring a similar amount of power. The wheel is constructed of brass; the bearings are fitted with self-oilers of the ring type, insuring continuous running with no other attention than oiling every few days.

Fans with Motors.

Price	each	7.00

Furnished with base or threaded to screw on discharge pipe.

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THE W. M. PATTISON SUPPLY CO. 523 CLEVELAND

BRASS GAS SERVICE COCKS.

TEE HANDLE.

FIG. 1279.
No. 276.

FLAT HEAD.

FIG. 1280.
No. 270.

SQUARE HEAD.

FIG. 1281.
No. 272.

FLAT HEAD, LOCK.

FIG. 1282.
No. 284.

Tee Handle, No. 276.

Size.....inches	¼	⅜	½	¾
Price.....each	.75	.85	.95	1.15
Price, with check.....each	.90	1.00	1.10	1.35

Flat and Square Head, Nos. 270 and 272.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2
Price.....each	.75	.85	.95	1.15	1.50	2.25	4.25	5.00

Flat Head, Male and Female, No. 274.

Size.....inches	½	¾	1	1¼	1½	2
Price.....each	1.30	1.40	1.95	3.00	4.25	6.00

Special Heavy Flat Head, Male and Female, Nos. 292 and 294.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price.....each	.85	.95	1.05	1.30	1.70	2.60	3.60	6.50	12.00	18.00

Flat Head, Oval Way and Check, No. 296.

Size.....inches	½	¾	1	1¼	1½	2
Price.....each	1.45	1.75	2.50	3.25	4.75	7.50

Flat Head, Lock Cock, No. 284.

Size.....inches	½	¾	1	1¼	1½	2
Price.....each	1.30	1.60	2.10	3.50	5.00	7.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

BRASS GAS METER COCKS.

FLAT HEAD.

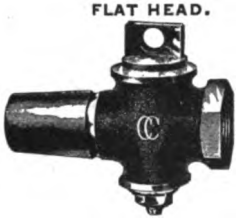

FIG. 1283.
No. 280.

FLAT HEAD WITH UNION.

FIG. 1284.
No. 282.

FLAT HEAD, LOCK

FIG. 1285.
No. 286.

Flat Head, No. 280.

Size.....inches	½	¾	1	1¼	1½	2
Price.....each	1.30	1.40	1.95	3.00	4.25	6.00

Flat Head with Union, No. 282.

Size.....inches	½	¾	1	1¼	1½	2
Price.....each	1.40	1.55	2.20	3.40	5.00	7.00

Flat Head, Lock, No. 286.

Size.....inches	½	¾	1	1¼	1½	2
Price.....each	1.40	1.75	2.30	3.85	5.50	7.75

FLAT HEAD WITH UNION AND LOCK.

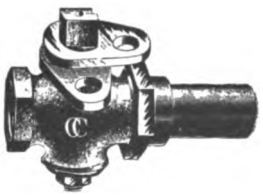

FIG. 1286.
No. 288.

FLAT HEAD WITH UNION AND LOCK, TO MAKE CONNECTION WITHOUT SOLDER JOINT.

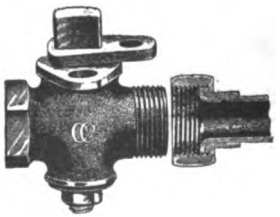

FIG. 1287.
No. 290.

Flat Head, with Union and Lock, No. 288.

Size.....inches	½	¾	1	1¼	1½	2
Price.....each	1.50	1.80	2.50	4.00	5.50	8.00

Flat Head, with Union and Lock, Special Connection, No. 290.

Size.....inches	½	¾	1	1¼	1½	2
Price.....each	1.50	1.80	2.50	4.00	5.50	8.00

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BRASS GAS FIXTURE FITTINGS

L BURNER COCK.

FIG. 1288.

L BURNER COCK, 4 INCHES LONG.

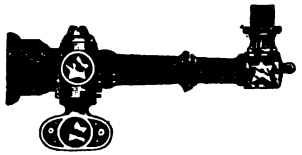

FIG. 1289.

L PENDANT COCK.

FIG. 1290.

Size .....inches	½	⅜	⅜ x ¼	⅜ x ⅛	¼	¼ x ⅛	⅛
Price, L Burner Cocks.....per dozen	6.20	5.20	.....	.....	4.55	.....	4.25
Price, Long L Burner Cocks, per dozen	.....	8.25	.....	.....	8.25	.....	.....
Price, L Pendant Cocks.....per dozen	.....	5.85	5.20	5.20	5.20	4.90	4.90

TWO LIGHT PENDANT COCK.

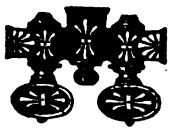

FIG. 1291.

REVOLVING PENDANT COCK.

FIG. 1292.

UNIVERSAL PENDANT COCK.

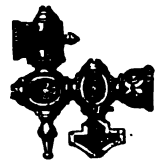

FIG 1293.

Size .....inches	⅜	⅜ x ¼	⅜ x ⅛	¼	¼ x ⅛	⅛
Price, Two Light Pendant Cocks, per dozen	10.10	9.10	9.10	9.10	8.45	8.45
Price, Revolving Pendant Cocks, per dozen	8.50	8.15	7.80	7.50	7.15	7.15
Price, Universal Pendant Cocks, per dozen	10.20	9.75	9.45	9.10	8.80	8.80

BRACKET SWING COCK.

FIG. 1294.

UNIVERSAL BRACKET SWING COCK.

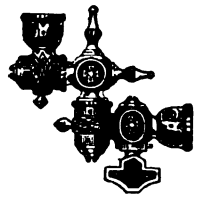

FIG. 1295.

UNIVERSAL SWING.

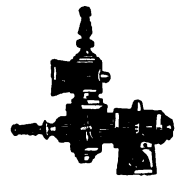

FIG. 1296.

Size .....inches	⅜	⅜ x ¼	⅜ x ⅛	¼	¼ x ⅛	⅛
Price, Bracket Swing Cocks..per dozen	9.10	8.45	8.15	8.15	7.80	7.80
Price, Universal Bracket Swing Cocks...per dozen	13.00	12.35	12.05	12.05	11.70	11.70
Price, Universal Swings.....per dozen	9.10	8.80	8.80	8.45	8.15	7.80

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BRASS GAS FIXTURE FITTINGS.

MIDDLE SWING.

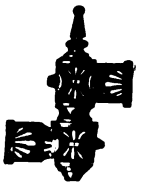

FIG. 1297.

TOP SWING.

FIG. 1298.

STRAIGHT COCK.

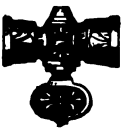

FIG. 1299.

PILLAR COCK.

FIG. 1300.

Size..... .....inches	½	⅜	⅜x¼	⅜x⅛	¼	¼x⅛	⅛
Price, Middle Swing..... per dozen	.....	.....	.....	.....	4.90	4.55	4.25
Price, Top Swing.....per dozen	.....	6.20	5.55	5.20	.....	.....	.....
Price, Straight Cocks per dozen	6.20	4.90	4.55	4.55	4.55	4.25	3.90
Price, Pillar Cocks...per dozen	5.20	4.55	.....	.....	4.25	.....	3.90

STRAIGHT NOZZLE.

FIG. 1301.

SIDE NOZZLE.

FIG. 1302.

BRACKET BODY.

FIG. 1303.

PILLAR BODY.

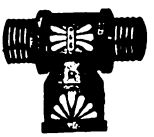

FIG. 1304.

Sixe..... ..... inches	½	⅜	¼	⅛
Price, Straight Nozzles.....per dozen	3.00	1.95	1.65	1.00
Price, Side Nozzles..... per dozen	.....	2.30	1.65	1.00
Price, Bracket Bodies ..... per dozen	.....	5.00	.....	.....
Price, Pillar Bodies.....per dozen	.....	5.20	.....	.....

STIFF JOINT.

FIG. 1305.

CONNECTING BALL.

FIG 1306.

HOSE COCK.

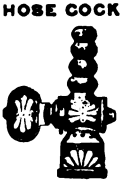

FIG 1307.

INDEPENDENT COCK.

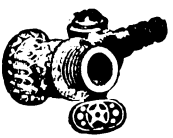

FIG. 1308.

DOUBLE INDEPENDENT COCK.

FIG. 1309.

Size..... inches	½	½x⅜	½x¼	½x⅛	⅜	⅜x¼	⅜x⅛	¼	¼x⅛	⅛
Price, Stiff Joints.....per dozen	3.25	2.60	2.60	2.60	1.95	2.60	1.55	1.50	1.40	1.40
Price, Connecting Balls...per dozen	2.60	.....	.....	.....	1.50	.....	.....	1.30	.....	.....
Price, Hose Cocks.....per dozen	5.55	.....	.....	.....	4.90	.....	.....	4.55	.....	4.25
Price, Independent Cocks...per dozen	8.00	8.00	.....	.....	6.50	.....	.....	6.00	.....	5.50
Price, Double Indpt. Cocks per dozen	.....	.....	.....	.....	15.00	.....	.....	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

EXTRA HEAVY BRASS GAS FIXTURE FITTINGS.

DOUBLE PENDANT COCK.

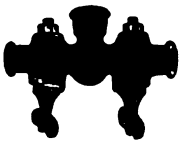

FIG. 1310.

SWING PENDANT COCK.

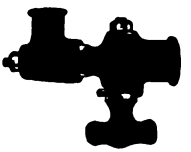

FIG. 1311.

FEMALE PENDANT COCK.

FIG. 1312.

MALE & FEMALE PENDANT COCK.

FIG. 1313.

Size ..... inches	¼ x ⅛	¼ x ¼	⅜ x ⅛	⅜ x ¼
Price, Double Pendant Cocks ..... each	1.80	.....	1.80	1.80
Price, Swing Pendant Cocks ..... each	1.50	.....	1.50	1.50
Price, Female Pendant Cocks ..... each	1.20	1.20	1.20	1.20
Price, M. and F. Pendant Cocks ..... each	1.20	.....	1.20	.....

BRACKET SWING JOINT.

FIG. 1314.

UNIVERSAL BRACKET SWING COCK.

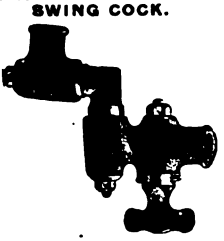

FIG. 1315.

DOUBLE SWING.

FIG. 1316.

SINGLE SWING.

FIG. 1317.

Size ..... inches	⅛ x ⅛	¼ x ⅛	¼ x ¼	⅜ x ⅛	⅜ x ¼	⅜ x ⅜
Price, Bracket Swing Joint ..... each	.....	1.50	1.50	1.50	1.50	.....
Price, Universal Bracket Swing Cock ..... each	.....	1.95	1.95	1.95	1.95	.....
Price, Double Swing ..... each	.....	1.20	1.20	.....	1.20	1.20
Price, Single Swing ..... each	1.00	1.00	1.00	1.00	1.00	1.00

BURNER ELBOW.

FIG. 1318.

HOSE COCK.

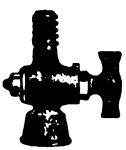

FIG. 1319.

MALE LAMP POST COCK.

FIG. 1320

FEMALE LAMP POST COCK.

FIG. 1321.

Size ..... inches	⅛ x ⅛	¼ x ⅛	¼ x ¼	⅜ x ¼	½	⅝	¾	1	1
Price, Burner Elbow, each	.30	.30	.....	.....	.....	.....	.....	.....	.....
Price, Hose Cock ..... each	.....	.....	1.20	1.20	.....	.....	.....	.....	.....
Price, Male Lamp Post Cock .. each	.....	.....	.....	.....	.80	.85	.90	1.00	1.15
Price, Female Lamp Post Cock. each	.....	.....	.....	.....	.80	.85	.90	1.00	1.15

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STAPLE GAS BRACKETS, ROUND TUBE.

STRAIGHT, STIFF.

FIG. 1322.

SINGLE SWING.

FIG. 1323.

Price, Straight Stiff Brackets.....each	Gilt ..... .40	Polished... .45
Price, Single Swing Brackets..... .....each	Gilt ..... .50	Polished... .60

DOUBLE SWING.

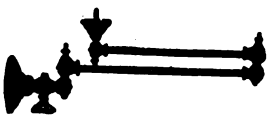

FIG. 1324.

TRIPLE SWING.

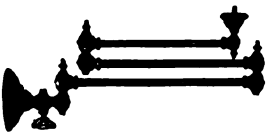

FIG. 1325.

Price, Double Swing Brackets.....each	Gilt ..... .80	Polished... .95
Price, Triple Swing Brackets..... each	Gilt 1.15	Polished...1.35

DOUBLE SWING UNIVERSAL.

FIG. 1326.

TRIPLE SWING UNIVERSAL.

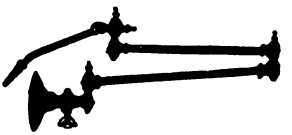

FIG. 1327.

Price, Double Swing Universal Brackets...each	Gilt 1.15	Polished...1.35
Price, Triple Swing Universal Brackets....each	Gilt 1.40	Polished...1.70

WIRE GUARD.

FIG. 1328.

JUMBO BURNER.

FIG. 1329.

IRON BURNER

FIG. 1330.

BRASS PILLAR.

FIG. 1331

JUMBO LAVA TIP.

FIG. 1332.

STANDARD LAVA TIP.

FIG. 1333

Price, Wire Guards.....per dozen	7.00
Price, Jumbo Burners Complete ..... per dozen	1.50
Price, Iron Burners.....per dozen	.60
Price, Brass Pillars .....per dozen	.20
Price, Jumbo Lava Tips.....per dozen	.90
Price, Standard Lava Tips.....per dozen	.20

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HOSE END COCKS.

FEMALE.

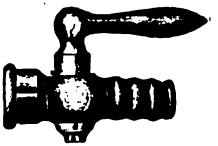


FIG. 1334.

MALE.

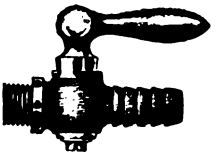


FIG. 1335.

FEMALE; LOOSE NIPPLE.

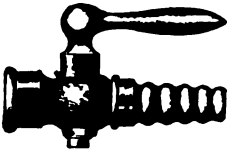


FIG. 1336.

Size..... inches	1/8	1/4	3/8
Price, Female Hose End Cocks.....per dozen	6.00	6.60	7.80
Price, Male Hose End Cocks.....per dozen	7.20	7.80	.....
Price, Female; Loose Nipple, Hose Cocks.....per dozen	7.50	8.25	9.50

Wood Handle Gas Cocks

MALE AND FEMALE.

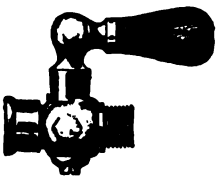


FIG. 1337.

MALE.

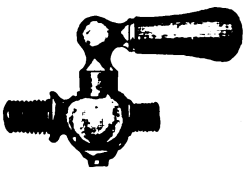


FIG. 1338.

Hose End Nipples.

MALE.

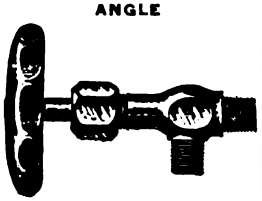
FEMALE.

FIGS. 1339-1340.

Size..... inches	1/8	1/4	3/8	1/2
Price, Male and Female Wood Handle Gas Cocks.....each	.....	.60	.....	.....
Price, Male, Wood Handle Gas Cocks,.....each	.55	.....	.....	.....
Price, Male or Female Hose End Nipples.....each	.25	.30	.35	.40

Gas Stove Valves

ANGLE



NEEDLE POINT.

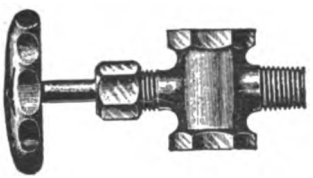


FIG. 1341.

FIG. 1342.

Gas Stove Tubing;

RUBBER ENDS.

FIG. 1343.

Size..... inches	1/8	3/8
Price, Angle Gas Stove Valves.....each	.55	.....
Price, Needle Point Gas Stove Valves.....each	.....	.75

Gas Stove Tubing; Rubber Ends.

Stock Lengths; 2, 3, 4, 6, 8, 10 and 12 ft. All Lenghts Under 4 ft., charged as 4 ft.

Price, Standard; Cotton Covered.....per foot	.10
Price, Victor; Silk Finish.....per foot	.15

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BRASS GAS SERVICE COCKS.

For Natural Gas.

FLAT HEAD.

FIG. 1344.

SQUARE HEAD WITH CHECK

FIG. 1345.

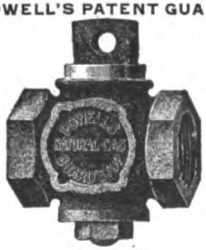
Flat and Square Head

Size ..... inches	⅜	½	¾	1	1¼	1½	2
Price..... each	.65	1.05	1.45	2.15	3.40	4.55	6.85

Square Head with Check

Size .....inches	⅜	½	¾	1	1¼	1½	2
Price .....each	.70	1.10	1.50	2.25	3.50	4.65	7.00

POWELL'S PATENT GUARD.



G. 1346.

POWELL'S SQUARE HEAD WITH CHECK.

FIG. 1347.

Powell's Patent Guard

Size ..... inches	⅜	½	¾	1	1¼	1½	2	2½	3
Price, Yellow Metal, each	1.20	1.50	1.90	2.25	3.30	4.90	8.20	15.00	26.00
Price, Red Metal...each	1.40	1.70	2.15	2.50	3.60	5.35	8.75	16.00	27.50

Powell's Square Head with Check

Size .....inches	⅜	½	¾	1	1¼	1½	2
Price .....each	.85	1.20	1.65	2.45	4.00	5.10	7.65

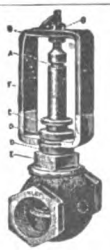


FIG. 1348.

SPECIAL NATURAL GAS REGULATING VALVES.

For Use with Power's Regulators

Size.....inches	1	1¼	1½	2
Price.....each	6.00	7.00	8.00	10.00

This Valve in connection with the Powers Regulator is absolutely automatic, the amount of gas consumed being controlled directly by the temperature of the house.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

BRASS GLOBE AND ANGLE VALVES.

For Natural Gas.

LOCK SHIELD GLOBE VALVE.

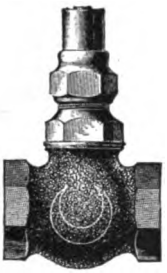

FIG. 1349.

SHIELD PROTECTOR.

FIG. 1350.

LOCK SHIELD ANGLE VALVE.

FIG. 1351.

Lock Shield Globe and Angle Valves.

Size.....inches	⅜	½	¾	1
Price, Rough Body.....each	1.10	1.35	1.60	2.25
Price, Rough Body, Nickel Plated.....each	1.40	1.65	1.95	2.65
Price, Finished.....each	1.60	1.85	2.15	2.85
Price, Finished and Nickel Plated.....each	1.90	2.15	2.50	3.25
Price, Shield Protectors.....each	.25	.30	.35	.40
Price, Shield Protectors, Nickel Plated.....each	.30	.35	.40	.50

GLOBE VALVE.

1-4 INCH SQUARE ON STEM.

FIG. 1352.

ANGLE VALVE.

1-2 INCH SQUARE ON STEM.

FIG. 1353.

Square Stem Globe and Angle Valves.

Size.....inches	⅜	½	¾	1
Price, Rough Body, ¼-inch Square on Stem.....each	.77	1.00	1.26	1.80
Price, Rough Body, ½-inch Square on Stem.....each	.97	1.20	1.45	2.10

KEYS EXTRA.

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BRASS KEYS FOR NATURAL GAS VALVES AND COCKS.

SHORT PATTERN, FOR LOCK SHIELD VALVES.

FIG 1354.

LONG PATTERN, FOR VALVES AND COCKS WITH ¼ AND ½ STEMS.

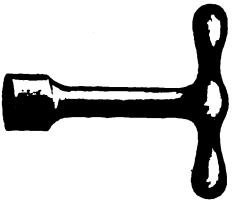

FIG. 1355.

Short Pattern Keys.

	Rough.	Finished.	Nickel Plated.
Price.....each	.12	.15	.18

Long Pattern Keys.

Length.....inches	3	6	9	12	15	18
Price, Finished, for ¼-inch Stem...each	.25	.35	.45	.55	.65	.75
Price, Nickel Plated, for ¼-inch Stem...each	.35	.50	.60	.75	.85	1.00
Price, Finished, for ½-inch Stem...each	.30	.45	.60	.75	1.00	1.25
Price, Nickel Plated, for ½-inch Stem...each	.40	.60	.85	1.10	1.45	1.75

Adjustable Malleable Iron Extension Rods.

FOR VALVES AND COCKS WITH ¼ AND ½ INCH SQUARE STEMS.

FIG. 1356.

Length.....inches	6 x 9	9 x 12	12 x 15	15 x 18	18 x 21	21 x 24
Price..... each	.35	.40	.45	.55	.65	.75

Floor Plates.

FOR VALVES.

FIG. 1357.

FOR COCKS.

FIG. 1358.

Sockets.

FIG. 1359.

Price, Finished, Floor Plates.....each	.20
Price, Nickel Plated, Floor Plates.....each	.30
Price, Sockets.....each	.15

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

NATURAL GAS MIXERS.

PLAIN.

FIG. 1360.

HEXAGON
SOLID PIN.

FIG. 1361.

HEXAGON
LOOSE PIN

FIG. 1362.

HEXAGON.
SET SCREW. SOLID PIN.

FIG. 1363.

	Rough,		Finished,		Nick'l Plated	
	Solid Pin.	Loose Pin.	Solid Pin.	Loose Pin.	Solid Pin.	Loose Pin.
Price, Plain, 1x⅜ or ½ inch.....each	.30	.35	.35	.40	.45	.50
Price, Plain, 1¼x⅜ or ½ inch.....each	.40	.45	.45	.50	.55	.60
Price, Hexagon, 1x⅜ or ½ inch.....each	.35	.40	.40	.45	.50	.55
Price, Hexagon, 1¼x⅜ or ½ inch....each	.45	.50	.50	.55	.60	.65
Price, Hexagon, 1½x⅜ or ½ inch....each	.55	.60	.60	.65	.75	.80
Price, Hexagon, Set Screw, 1x⅜ or ½ inch, each	.40	.....	.45	.....	.55	.....
Price, Hexagon, Set Screw, 1¼x⅜ or ½ inch, each	.50	.....	.55	.....	.65	.....
Price, Hexagon, Set Screw, 1½x⅜ or ½ inch, each	.60	.....	.65	.....	.80	.....

GLOBE.
SOLID PIN.

FIG. 1364.

HALF GLOBE.
LOOSE PIN.

FIG. 1365.

OPEN SIDE.
SET SCREW.

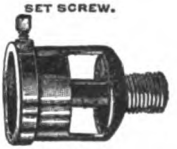

FIG. 1366.

ADJUST'LE RING
LOOSE PIN

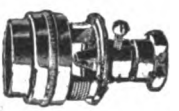

FIG. 1367.

	Rough.	Finished.	Nickel Plated.
Price, Globe, 1x⅜ or ½ inch.....each	.50	.65	.80
Price, Globe, 1¼x⅜ or ½ inch.....each	.55	.70	.85
Price, Globe, 1½x⅜ or ½ inch.....each	.65	.80	1.00
Price, Half Globe, 1x⅜ or ½ inch.....each	.65	.75	1.00
Price, Half Globe, 1¼x⅜ or ½ inch.....each	.75	.85	1.10
Price, Open Side, Set Screw, ¾x⅜ or 1x½ inch...each	.40	.45	.60
Price, Adjustable Ring, Loose Pin, 1x⅜ or ½ in..each	.....	.70	.80

ALLEGHENY.
SOLID PIN.

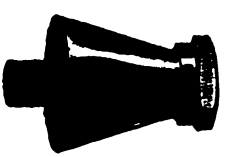

FIG. 1368.

ALLEGHENY.
LOOSE PIN.

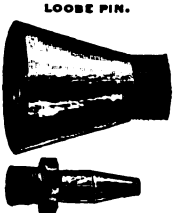

FIG 1369.

IRON.
ADJUSTABLE SHIELD.

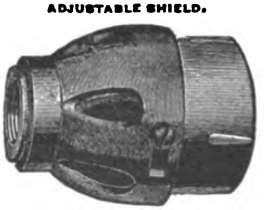

FIG. 1370.

	Rough.		Finished.		Nickel Plated.	
	Solid Pin.	Loose Pin.	Solid Pin.	Loose Pin.	Solid Pin.	Loose Pin.
Price, Allegheny, 1x⅜ or ½ inch, each	.40	.50	.50	.65	.75	.85
Price, Iron, 1½x1 inch.....each						.40
Price, Iron, 2x1 inch.....each						.45

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

NATURAL GAS BURNERS.

Good Luck.

LONG.

FIG. 1371.

ROUND.

FIG. 1372.

Long.

Length ..... inches	8	10	12	14	16	18	20
Price ..... each	.60	.70	.80	.90	1.00	1.20	1.40

Round.

Diameter ..... inches	6	8	10	12
Price ..... each	.70	1.00	1.40	1.80

Standard.

LONG.

FIG. 1373.

ROUND.

FIG. 1374.

Long

Length ..... inches	12	14	16	18	20	22	24
Price ..... each	1.20	1.30	1.40	1.50	1.60	1.80	1.90

Round.

Diameter ..... inches	4	6	8	10	12	14
Price ..... each	.50	1.00	1.50	2.00	2.50	3.00

BOTTOM OPENING. Tube. END OPENING.

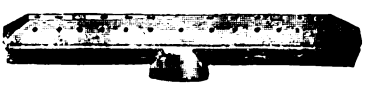

FIG. 1375.

FIG. 1376.

Length ..... inches	10	12	14	16	18	20
Price, Bottom Opening ..... each	.40	.45	.50	.55	.60	.65
Price, End Opening ..... each	.50	.55	.60	.65	.70	.75

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NATURAL GAS BURNERS.

THREE WAY.

FIG 1377.

FOUR WAY.

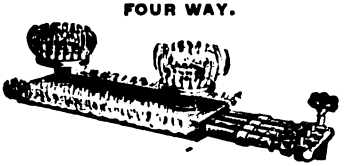

FIG. 1378.

Size .....inches	4x12	4x14	4x16	4x18	4x20	5x12	5x14	5x16	5x18	5x20
Price, Three Way..each	5.20	5.40	5.60	6.00	6.50	.....	.....	.....	.....	.....
Price, Four Way..each	.....	.....	.....	.....	.....	6.50	6.75	7.00	7.35	7.75

ECONOMY.

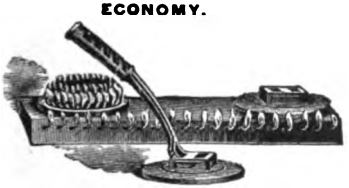

FIG. 1379.

KLEIN.

FIG. 1380.

Economy Burners

Size.....inches	5 x 12	5 x 14	5 x 16	5 x 18
Price.....each	1.75	2.00	2.25	2.50

Klein Burners

Length ..... inches	24	34	36	46	48	60	72	96
Price, Single.....each	8.00	.....	10.50	.....	13.00	15.00	18.00	24.00
Price, Double.....each	.....	13.50	.....	18.50	.....	.....	.....	.....

RING.

FIG. 1381.

SPLIT RING.

FIG. 1382.

FURNACE

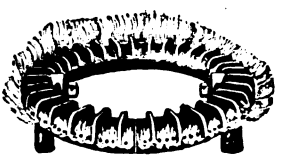

FIG. 1383.

Tapped.....inches	½	½ or ¾	¾ or 1	1	Each Section 1¼ Side and Bottom.						
Diameter...inches	¼	5	6	8	12	14	16	18	20	22	24
Price.....ring	.50	.55	.60	1.00	... ...	... ...	... ...	... ...	... ...	... ...	... ...
Price.....split ring	.50	.55	.60	... ..	.. ...	... ...	... ...	... ...	... ...	... ...	... ...
Price ..... furnace	... ...	.....	1.00	... ...	2.00	2.50	3.00	3.75	4.50	5.25	6.00

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NATURAL GAS BURNERS.

WATER BACK.

FIG. 1384.

RECTANGULAR.

FIG. 1385.

Water Back Burners

Tapped..... inches	1	1	1	1	1	1	1½
Length..... inches	10	12	14	16	18	42	
Price ..... each	.75	.80	.90	1.00	1.25	.....	

Rectangular Burners.

Number.....	0	1	2	3	4	5	6
Size.....inches	4x10	4x12	4x14	4x16	4x18	5x20	6x22
Price.....each	1.10	1.25	1.50	1.75	2.00	2.25	3.00

End or Center inflow; Tapped 1¼ inch.

SHEET STEEL FOR ASBESTOS BACKS.

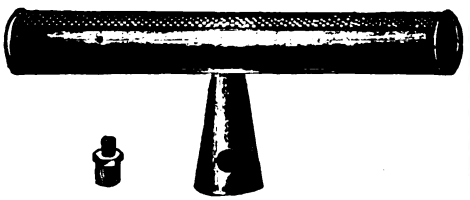

FIG. 1386.

WATER HEATER.

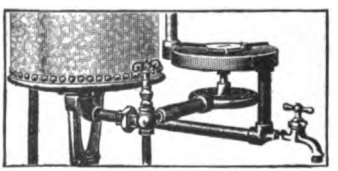

FIG. 1387.

Length.....inches	13	18	20	.....
Price, Sheet Steel.....each	1.15	1.15	1.15	.....
Price.....each	.....	.....	.....	1.50

THREE WAY.

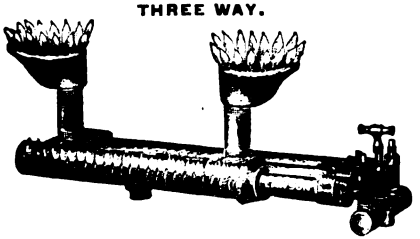

FIG. 1388.

FOUR WAY.

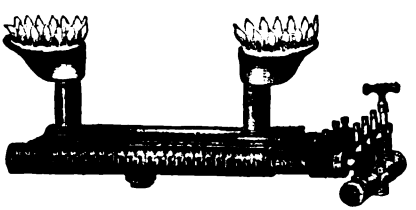

FIG. 1389.

Size..... inches	4½x12	4½x14	4½x16	4½x18	5½x12	5½x14	5½x16	5½x18
Price, Three Way...each	6.25	6.50	6.75	7.25	.....	.....	.....	.....
Price, Four Way...each	.....	.....	.....	.....	7.80	8.10	8.40	8.85

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THE W. M. PATTISON SUPPLY CO. 537 CLEVELAND

RELIABLE CIRCULATING WATER HEATERS.

FOR MANUFACTURED OR NATURAL GAS.

FIG. 1390.

FOR GASOLINE.

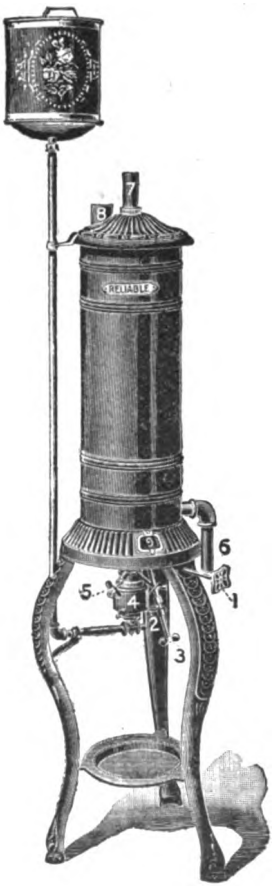

FIG. 1391.

Diameter	inches	7½
Height	inches	26
Price, No. 1, for Manufactured Gas	each	15.00
Price, No. 2, for Natural Gas	each	15.00
Price, No. 3, for Gasoline	each	20.00

Gas consumed per hour, 28 to 35 cubic feet.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

GAS LAUNDRY STOVES.

PLAIN.

FIG. 1392.

No. 327.

WITH SIDE ATTACHMENT.

FIG. 1393.

No. 325.

Number.	Height, Inches.	Size of Top, Inches.	Price, Each.
327	24	24x18	12.00
225	24	24x18	18.00

Figure 1392, illustrates a Gas Laundry Stove of the same construction as No. 325, less side attachments, for heating sad irons. Sad irons can be heated on top entirely satisfactory when not in use for other purposes. This will be found the more desirable and popular size for small families.

Figure 1393, illustrates a Gas Laundry Stove with sad iron heating device on each side, each fitted with a powerful burner, the flame of which plays directly against the underside of slanting side plates, heating the irons very evenly. Each side holds three sad irons. In the construction of this device the handles of irons do not become overheated.

Furnished for Natural or Artificial Gas.

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THE W. M. PATTISON SUPPLY CO. 539 CLEVELAND

GAS RANGES.

FIG. 1394.
Nos. 334 to 320.

FIG. 1395.
Nos. 444 to 422.

Number.	Height, Inches.	Oven and Broilers. Width, Inches.	Oven and Broilers. Depth, Inches.	Height of Oven, Inches.	Height of Low Broiler, Inches.	Side Broiler Opening, Inches.	Number of Burners on Top.	Number of Cooking Holes. Over Water Heater.	Number of Cooking Holes. Over Side Broiler.	Size of Top, Inches.	Price, Each.
334	35	16½	16½	11½	9	....	4	.....	.....	39x23	28.00
314	35	18½	18½	11½	9	....	4	.....	.....	41x23	32.00
336	35	16½	16½	11½	9	....	4	2	.....	45x23	40.00
316	35	18½	18½	11½	9	....	4	2	.....	47x23	44.00
338	35	16½	16½	11½	9	10 x 7	4	.....	2	45x23	41.00
318	35	18½	18½	11½	9	10 x 7	4	.....	2	47x23	45.00
340	35	16½	16½	11½	9	10 x 7	4	.....	2	45x23	53.00
320	35	18½	18½	11½	9	10 x 7	4	.....	2	47x23	57.00
444	35	20½	20½	12	10¼	.. ..	4	.....	.....	40x24	45.00
444 H	35	20½	20½	12	10¼	.. ..	4	2	.....	45x24	63.00
460	35	20½	20½	12	10½	11¼x11½	4	.....	2	45x24	60.00
461	35	20½	20½	12	10½	11¼x11½	4	.....	2	45x24	78.00
416	35	20½	20½	12	10½	....	6	.....	.....	46x24	51.00
416 H	35	20½	20½	12	10½	....	6	2	.....	52x24	69.00
418	35	20½	20½	12	10½	11¼x11½	6	.....	2	52x24	66.00
422	35	20½	20½	12	10½	11¼x11½	6	.....	2	52x24	84.00

Nos. 336 and 316 have High Water Heater. Nos. 338 and 318 have Side Broiler. Nos. 340 and 320 have Side Broiler and Water Heater attachments. No. 444 H. has High Kitchen Boiler Heater Attachment. No. 460 has Side Broiler. No. 461 has Side Broiler and Kitchen Boiler Attachment. No. 416 H. is desirable where Water Heater Attachment is desired. No. 418 has Side Broiler. No 422 has Side Broiler and Water Heater.

Furnished for Natural or Artificial Gas.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

NATURAL GAS RADIATORS.

FIG. 1396.
No. 591.

FIG. 1397.
No. 593.

FIG. 1398.
No. 527.

FIG. 1399.
No. 537.

Number.	Height, Inches.	Width of Cast Section Inches.	Size of Base, Inches.	Gas Consumed Per Hour, Cubic Feet.	Price, Plain Finish.	Price, Nickel Plated Trimmings. Each.
591	32	13	20x12	6 to 18	.....	10.00
593	33	13	20x15	.....	15.00	17.00
527	33	19½	26x15	.....	18.00	21.00
537	41	20	.....	10 to 30	20.00	23.00

Nos. 591, 593 and 527 can be furnished for Artificial Gas when so ordered. They are fitted with Asbestos Back and Slotted Burner. No. 537 is so constructed that all cold air is drawn from the floor and discharged through perforated tubes.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

NATURAL GAS STOVES AND GRATE BURNERS.

GAS STOVE.

FIG. 1400.

ODORLESS GRATE BURNER, SET IN FIRE PLACE.

FIG. 1401.

Natural Gas Stoves.

Number.	Height, Inches.	Width, Inches.	Depth, Inches.	Flue Connection, Inches.	Finish of Top and Fender.	Price, Each.
300	27	21½	10	4	Plainished Iron....	8.50
302	27	21½	10	4	Polished Brass.....	10.50
304	27	21½	10	4	Nickel Plated.....	11.00
306	27	21½	10	4	Oxidized Copper...	11.25

Wire Dress Guards, 70 cents each, extra.

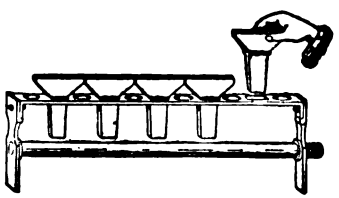

FIG. 1402.

Odorless Grate Burner.

Length.....inches	16 to 18	19 to 21	22 to 24
Price.....complete	3.25	3.50	3.75

The Odorless Grate Burner is designed for use in open fireplaces or stoves, it can be used with either asbestos or tile backs. Each section can be readily removed or replaced. This is a desirable feature when the burner requires cleaning.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

NATURAL GAS STOVES.

FIG. 1403.

Nos 58, 58½, 56 and 56½.

FIG. 1404.

No. 056.

FIG. 1405.

No. 57.

Number.	Height, Inches.	Width, Inches.	Depth, Inches.	Width of Fire, Inches.	Size of Room Suitable For, Square Feet.	Gas Consumed Per Hour, Cubic Feet.	* Price, Each.	* Price, With Brass Fender, Each.
58	23½	17½	9½	13	16	13	6.50	
58½	23½	17½	9½	13	16	13		7.50
56	25½	22	10	17½	20	18	9.50	10.75
56½	25½	22	10	17½	20	18	.....	.....
056	27½	22	10	17½	20	18	.....	12.00
57	27½	22	10	17½	20	18	.....	14.50

*Numbers, 58 and 58½ are of Best Black Finish and have 3 inch flue connection. Numbers 56 and 56½ are of Best Black Finish and have 4 inch flue connection. Number 056 is of Best Black Finish and has 4 inch flue connection, brass fender, two brass Posts and top rail. Number 57 is of Best Black Finish and has 4 inch flue connection, brass fender, six brass posts and brass rails.

Wire Dress Guards, 70 cents each, extra.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

NATURAL GAS STOVES.

FIG. 1406.
No. 529.

FIG 1407.
No. 521.

FIG. 1408.
No. 533.

Number.	Width of Front, Inches.	Height, Inches.	Gas Consumed Per Hour, Cubic Feet.	Price, Each.
529	12	19	5 to 15	4.50
521	15	23	5 to 15	6.00
533	17	29	6 to 18	10.00

These stoves have Nickel Plated trimmings. No. 521 and 533 have cast iron front. Can be furnished for Artificial Gas when so ordered.

FIG. 1409.
Nos. 627, 628, 629.

FIG. 1410.
No. 712.

Number.	Height, Inches.	Diameter, Inches.	Diameter of Burner, Inches.	Gas Consumed per Hour Cubic Feet.	Price, Each.	Number.	Height, Inches.	Width, Inches.	Depth, Inches.	Gas Consumed per Hour, Cubic Feet.	Price, Each.
627	39	7½	7½	8 to 24	15.00	712	48	18	16	10 to 30	26.00
628	47	12½	9	9 to 27	17.00	.....	.....	.....	.....	.....	.....
629	55	14½	10½	10 to 30	19.00	.....	.....	.....	.....	.....	.....

These Stoves have Nickel Plated trimmings. They are fitted with cast iron fire pot and Atmospheric burner with brick filling over same.

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LOW PRESSURE NATURAL GAS REGULATORS

For Use in Connection with Welsbach Lights, Etc.

FIG. 1411.
No. 0.

FIG. 1412.
Nos. 1 and 2.

FIG. 1413.
No. 3.

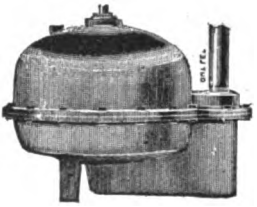


FIG. 1414.
No. 4.

Number	0	1	2	3	4
Price ..... each	5.00	8.00	9.00	10.00	30.00
Size, Inlet.....inches	⅜	½	¾	1	2
Size, Outlet.....inches	⅜	¾	1	1½	2

SENSITIVE NATURAL GAS REGULATOR.

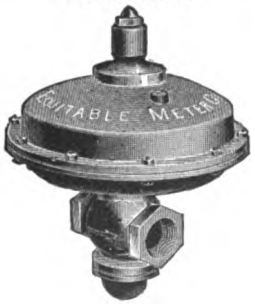
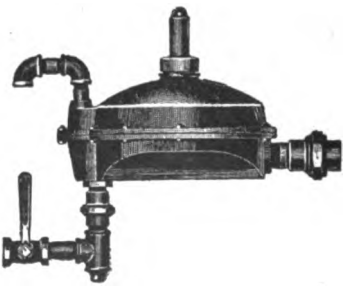


FIG. 1415.

NATURAL GAS FUEL REGULATOR AND AUTOMATIC CUT-OFF



Sensitive Natural Gas Regulators.

With 2 oz. to 5 lbs. Inlet Pressure.	Water Column Pressure Inches.	Mercury Pressure Ounces.	Size, Inches.						
			¾	1	1¼	1½	2	2½	3
Capacity. Cubic Feet Per Hour, Set At	½		60	75	200	300	500	600	800
	1		90	120	350	400	900	1200	1500
		1	150	200	500	600	1200	1500	2800
		2	200	260	600	800	1800	2200	5000
Price ..... each			5.00	9.00	10.00	15.00	20.00	25.00	30.00

The Sensitive Regulators are for use in connection with Gas Ranges, Engines, Linotype Machines and Domestic service, When intended for reducing pressure greater than 5 pounds, Approximate pressure should be specified. Regulators will be furnished to take care of inlet pressure up to 60 pounds at an additional cost of 10 per cent on list.

Natural Gas Fuel Regulators and Automatic Cut-Off.

Size	A	B
Reducing From.....	50 Pounds or Less to 2 ounces	100 Pounds or Less to 2 ounces
Price ..... each	15.00	15.00
Inlet	1	1
Outlet.....	1½	1½

Extra weight to increase pressure to 3 or 4 ounces 50 cents each. Inlets 1 inch; Outlets 1½ inch.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

NATURAL GAS REGULATORS.

FULTON, HIGH PRESSURE REGULATOR.

FULTON, HOUSE OR LOW PRESSURE REGULATOR

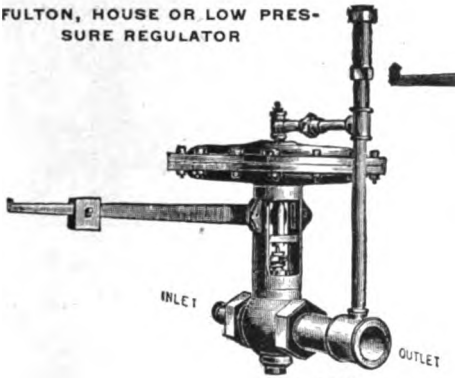

FIG. 1417.

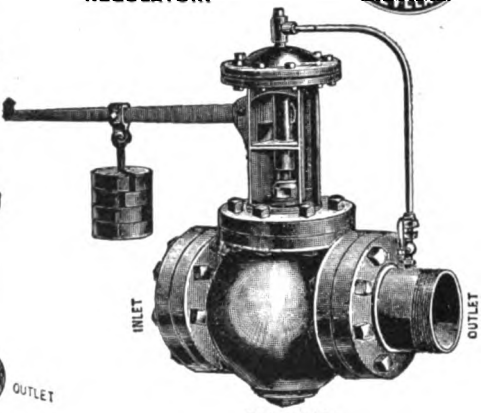

FIG. 1418.

High and Low Pressure Regulators

Size, Inlet....inches	1	1¼	1½	2	2½	3
Size, Outlet..inches	1¼,1½ or 2	1¼,1½ or 2	1½,2 or 2½	2,2½,3 or 4	2½,3 or 4	3,3½,4 or 6
Price..... each	20.00	25.00	30.00	40.00	55.00	70.00
Size, Inlet....inches	4	6	8	10	12	16
Size, Outlet..inches	4,4½,5,5½ or 6	6 or 8	8 or 10	10	12	16
Price..... each	90.00	150.00	225.00	325.00	450.00	650.00

FULTON, AUTOMATIC NATURAL GAS BOILER REGULATOR.

CRAWFORD, NATURAL GAS REGULATOR.

FIG. 1419.

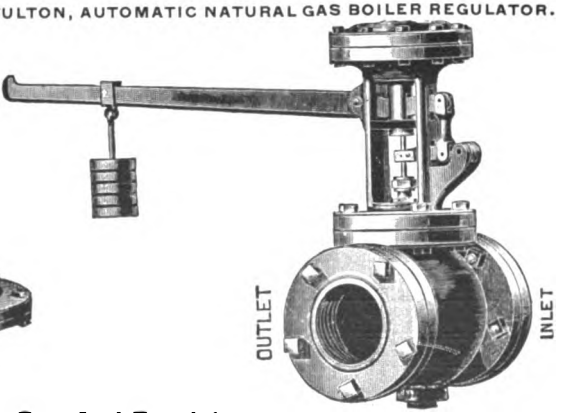

FIG. 1420.

Crawford Regulators.

Number.	Inlet, Inches.	Outlet, Inches.	Diaphragm, Inches.	Reducing Pressure, Pounds.	Price, Each.
1	1	1	8	100 to 0	7.00

Automatic Boiler Regulators.

Size ... inches	1	1¼	1½	2	2½	3	3½	4	5	6	8
Price.....each	18.00	23.00	28.00	40.00	48.00	55.00	65.00	75.00	90.00	110.00	165.00

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CASING HEADS.

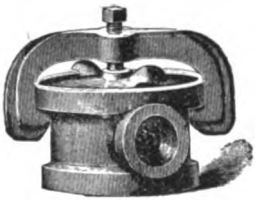

FIG. 1421.

Size.....inches	4¼	4½	4¾	5	5⅝	6	6¼	6⅝
Price, with 2-inch Openings...each	5.50	5.50	5.50	6.00	8.00	8.00	8.00	12.00

OPEN MERCURY GAUGE.

SIPHON PRESSURE GAUGE.

FIG. 1422.

FIG. 1423.

DIAPHRAGM PRESSURE GAUGE.

FIG. 1424.

SPRING PRESSURE GAUGE.

FIG. 1425.

COMBINED GAS REGULATOR AND GAUGE.

FIG. 1426.

Siphon Pressure Gauges

Length.....inches	4	6	8	10	12	14	16	18	20	24
Price, Nickel Plated, each	5.00	6.50	8.00	10.00	12.00	15.00	18.00	22.00	28.00	35.00

Open Mercury Gauges

For Pressure...pounds	3	5	7	10	15	20	25
Price.....each	5.00	5.00	6.00	8.00	12.00	16.00	20.00

Diaphragm and Spring Gauges

Size Dial.....inches	6	6	6
For Pressure..pounds	Steel Diaphragm. 300	Brass Spring. 1000	Steel Spring. Any Pressure.
Price.....each	12.00	35.00	35.00

Combined Gas Regulator and Gauge

Size Dial.....inches	3
Price.....each	25.00

The combined Gas Regulator and Gauge is automatic and is used where certain pressures and temperatures should not be exceeded, it acts both as a safety and a reducing valve. The inner figures on the gauge indicate pressure, the outer figures corresponding degrees of heat.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

ROUGH STOPS AND STOPS AND WASTES.

T HANDLE STOP.

FIG. 1427.

LEVER HANDLE STOP.

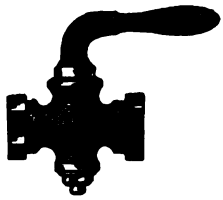

FIG. 1428.

T HANDLE STOP AND WASTE.

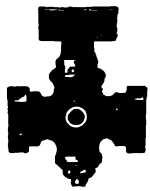

FIG. 1429.

LEVER HANDLE STOP AND WASTE.

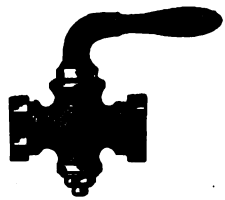

FIG. 1430.

T and Lever Handle Stops for Iron, Lead and Iron and Lead Pipe.

Size.....inches	⅜	½	⅝	¾	1	1¼	1½	2
Price, Flat Way.....per dozen	15.00	17.00	22.00	26.00	38.00	60.00	90.00	180.00
Price, Round Way.....per dozen	.....	21.00	27.00	32.00	54.00	84.00	126.00	250.00

T and Lever Handle Stops and Wastes for Iron, Lead and Iron and Lead Pipe.

Size.....inches	⅜	½	⅝	¾	1	1¼	1½	2
Price, Flat Way.....per dozen	17.00	19.00	24.00	28.00	41.00	64.00	96.00	190.00
Price, Round Way.....per dozen	.....	23.00	29.00	34.00	57.00	88.00	132.00	260.00

CURB STOPS.

T HANDLE STOP.

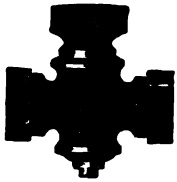

FIG. 1431.

NEWPORT STOP.

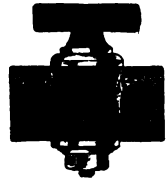

FIG. 1432.

INVERTED KEY STOP.

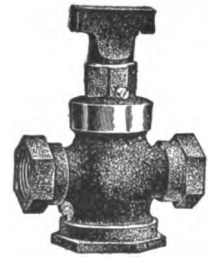

FIG. 1433.

Curb Stops for Iron, Lead and Iron and Lead Pipe.

Size.....inches	½	⅝	¾	1	1¼	1½	2
Price.....per dozen	21.00	27.00	32.00	54.00	84.00	126.00	250.00

Newport Stops for Iron Pipe.

Size.....inches	½	¾	1	1¼	1½	2
Price.....per dozen	20.00	29.50	52.00	82.00	116.00	220.00

Inverted Key Curb Stops for Iron, Lead and Iron and Lead Pipe.

Size.....inches	½	⅝	¾	1	1¼	1½	2
Price, Stops.....per dozen	25.00	33.00	39.00	65.00	102.00	154.00	300.00
Price, Stops and Wastes.....per dozen	27.00	35.00	41.00	68.00	106.00	160.00	310.00

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GUARD STOPS AND STOPS AND WASTES.

STOP.

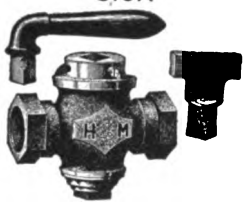

FIG. 1434.

STOP AND WASTE.

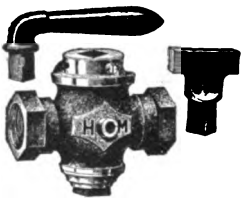

FIG. 1435.

T, Lever Handle or Socket Head Stops for Iron, Lead and Iron and Lead Pipe.

Size.....inches	½	⅝	¾	1	1¼	1½	2
Price, Flat Way.....per dozen	17.00	22.00	26.00	38.00	60.00	90.00	180.00
Price, Round Way.....per dozen	21.00	27.00	32.00	54.00	84.00	126.00	250.00

T, Lever Handle or Socket Head Stop and Wastes for Iron, Lead and Iron and Lead Pipe.

Size.....inches	½	⅝	¾	1	1¼	1½	2
Price, Flat Way.....per dozen	19.00	24.00	28.00	41.00	64.00	96.00	190.00
Price, Round Way.....per dozen	23.00	29.00	34.00	57.00	88.00	132.00	260.00

HYDRANT COCKS.

T HANDLE.

FIG. 1436.

SOCKET HEAD.

FIG. 1437.

T and Socket Head Hydrant Cocks for Iron and Lead and Iron Pipe.

Size..... inches	½	⅝	¾	1	1¼	1½	2
Price, Straight Way ..per dozen	21.00	27.00	31.50	45.00	69.00	104.00	200.00
Price, Round Way.....per dozen	25.00	32.00	37.50	61.00	93.00	140.00	270.00

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WATER PRESSURE REGULATORS.

STANDARD WATER PRESSURE REGULATOR

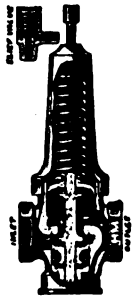

FIG. 1438.

LOW REDUCING WATER PRESSURE REGULATOR.

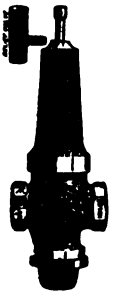

FIG. 1439

Standard and Low Reducing Water Pressure Regulators.

Size ..... inches	½	¾	1	1¼	1½	2	2½
Price, Standard.....each	10.00	10.00	13.00	17.50	24.00	40.00	55.00
Price, Low Reducing..... each	12.00	12.00	15.00	20.00	28.00	46.00	63.00

All Regulators 1¼ inch and smaller are provided with a Relief Valve to relieve the expansion of hot water and prevent the creating of pressure in the house supply pipes.

Low Reducing Regulators will reduce any high water pressure to zero.

WITHOUT AUTOMATIC MOVEMENT.

WITH AUTOMATIC MOVEMENT.

CELLAR DRAINERS.

FIG. 1440.

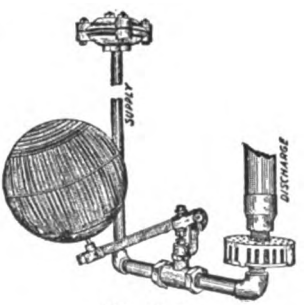

FIG. 1441.

No.	Price Without Automatic Movement, Each.	Price, With Automatic Movement, Each.	Capacity Per Hour, Gallons.	Lift, Feet.	Pressure, Pounds.	Supply Pipe, Inches.	Discharge Pipe, Inches.
1	15.00	25.00	50 to 250	6 to 12	15 to 80	½	1
2	25.00	40.00	100 to 400	6 to 12	15 to 80	¾	1¼
3	35.00	55.00	150 to 600	6 to 12	15 to 80	1	1½
4	50.00	80.00	200 to 800	6 to 12	15 to 80	1¼	2
5	70.00	110.00	275 to 1000	6 to 12	15 to 80	1½	2½
6	100.00	160.00	350 to 1200	6 to 12	15 to 80	2	3

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THE W. M. PATTISON SUPPLY CO. 550 CLEVELAND

CORPORATION COCKS.

For Mueller Tapping Machine.

FOR IRON PIPE, SCREW PLUG.

FIG. 1442.

FOR IRON PIPE, HEXAGON PLUG.

FIG. 1443.

Size.....inches	⅜	½	⅝	¾	1	1¼	1½	2
Price, Screw Plug .....each	1.25	1.35	1.85	2.40	3.85	7.80	10.40	17.40
Price, Hexagon Plug .....each	1.25	1.35	1.85	2.40	3.85	7.80	10.40	17.40

BENT COUPLING SCREW PLUG.

FIG. 1444.

STRAIGHT COUPLING, SCREW PLUG.

FIG. 1445.

Size.....inches	⅜	½	⅝	¾	1	1¼	1½	2
Price, Bent Coupling, Screw Plug.....each	1.45	1.60	2.25	2.85	4.50	9.00	12.00	20.00
Price, Straight Coupling, Screw Plug.....each	1.45	1.60	2.25	2.85	4.50	9.00	12.00	20.00

BENT COUPLING, HEXAGON PLUG.

FIG. 1446.

STRAIGHT COUPLING, HEXAGON PLUG.

FIG. 1447.

Size.....inches	⅜	½	⅝	¾	1	1¼	1½	2
Price, Bent Coupling Hexagon Plug.....each	1.45	1.60	2.25	2.85	4.50	9.00	12.00	20.00
Price, Straight Coupling Hexagon Plug.....each	1.45	1.60	2.25	2.85	4.50	9.00	12.00	20.00

Corporation Cocks to Drive or Screw in Wood Mains.

Size.....inches	⅜	½	⅝	¾	1	1¼
Price, Without Couplings.....each	1.50	1.65	2.20	2.80	4.35	8.80
Price, With Bent or Straight Couplings.....each	1.70	1.90	2.60	3.25	5.00	10.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 551

CORPORATION COCKS.

For Payne Tapping Machine.

FOR IRON PIPE, SCREW PLUG.

FIG. 1448.

FOR IRON PIPE, BOTH ENDS.

FIG. 1449.

Size.....inches	⅜	½	⅝	¾	1	1¼	1½	2
Price, Screw Plug.....each	1.25	1.35	1.85	2.40	3.85	7.80	10.40	17.40
Price, Iron Pipe Both Ends.....each	1.25	1.35	1.85	2.40	3.85	7.80	10.40	17.40

BENT COUPLING, SCREW PLUG.

FIG. 1450

STRAIGHT COUPLING, SCREW PLUG.

FIG. 1451.

Size.....inches	⅜	½	⅝	¾	1	1¼	1½	2
Price, Bent Coupling Screw Plug....each	1.45	1.60	2.25	2.85	4.50	9.00	12.00	20.00
Price, Straight Coupling Screw Plug.....each	1.45	1.60	2.25	2.85	4.50	9.00	12.00	20.00

BENT COUPLING, FOR IRON PIPE.

FIG. 1452.

STRAIGHT COUPLING, FOR IRON PIPE.

FIG. 1453.

Size.....inches	⅜	½	⅝	¾	1	1¼	1½	2
Price, Bent Coupling, for Iron Pipe.....each	1.45	1.60	2.25	2.85	4.50	9.00	12.00	20.00
Price, Straight Coupling, for Iron Pipe.....each	1.45	1.60	2.25	2.85	4.50	9.00	12.00	20.00

Corporation Cocks; Coarse Thread for Wood Pipe.

Size..... inches	⅜	½	⅝	¾	1	1¼
Price, Short..... each	1.50	1.65	2.20	2.80	4.35	8.80
Price, Bent Coupling..... each	1.70	1.90	2.60	3.25	5.00	10.00
Price, Straight Coupling..... each	1.70	1.90	2.60	3.25	5.00	10.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 552

OIL AND MOLASSES GATES.

PERFECTION

FIG. 1454.

STEBBINS.

FIG. 1455.

Perfection Gates.

Size..... inches	½	¾	1	1¼	1½	2	3
Price..... per dozen	9.50	12.00	14.00	16.50	20.00	28.00	36.00

Stebbins Gates.

Number	1	2	3	4	5
Size..... inches	1 3/16	⅞	1¼	1⅜	1½
Price..... per dozen	7.00	8.00	9.00	10.00	12.00

KEROSENE COCKS.

IRON.

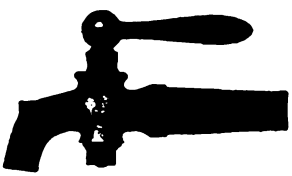

FIG. 1456

BRASS.

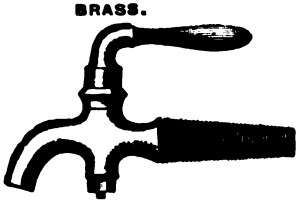

FIG. 1457

Iron Kerosene Cocks.

Size..... inches	⅜	½	⅝	¾	1
Price..... per dozen	6.75	8.25	9.00	10.50	12.00

Brass Kerosene Cocks, Finished.

Size..... inches	⅜	½	⅝	¾	1
Price..... per dozen	12.50	15.00	19.00	26.00	42.50

We can furnish Kerosene Cocks with Tinned ends to solder, at same price.

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THE W. M. PATTISON SUPPLY CO. 553 CLEVELAND

RACKING COCKS, FINISHED.

Ground Key.

TO DRIVE.

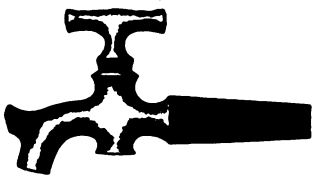

FIG. 1458.

TO SCREW

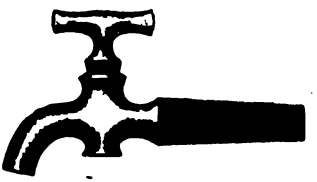

FIG. 1459.

Size..... inches	¼	⅜	½	⅝	¾	1
Price, To Drive.....per dozen	5.00	7.50	10.00	14.50	17.00	30.00
Price, To Screw.....per dozen	5.50	8.00	11.00	16.00	19.00	32.50

TO DRIVE.

FIG. 1460.

Loose Key

TO SCREW.

FIG. 1461.

Size..... inches	¼	⅜	½	⅝	¾	1
Price, To Drive.....per dozen	6.50	8.50	12.00	16.50	20.00	35.00
Price, To Screw.....per dozen	7.00	9.00	13.00	18.00	22.00	37.50

COMPRESSION.

TO DRIVE.

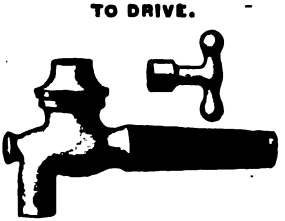

FIG. 1462.

Loose Key.

TO SCREW.

FIG. 1463.

Size..... inches	⅜	½	⅝	¾
Price, To Drive.....per dozen	12.00	14.00	18.00	24.00
Price, To Screw.....per dozen	12.50	15.00	19.50	26.00

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LEVER HANDLE GROUND KEY BIBBS.

PLAIN.

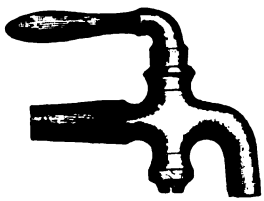

FIG. 1464.

SCREWED.

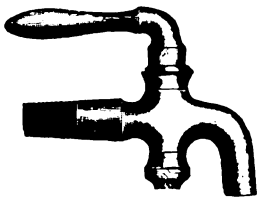

FIG. 1465.

Size ..... inches	¼	⅜	½	⅝	¾	1	1¼	1½	2
Price, Rough; Plain.....per dozen	12.00	14.00	16.00	19.00	26.00	37.00	60.00	90.00	180.00
Price, Finished; Plain....per dozen	13.50	15.50	18.00	21.50	29.00	41.00	70.00	110.00	210.00
Price, Rough; Screwed...per dozen	13.00	15.00	18.00	22.00	30.00	43.00	68.00	100.00	200.00
Price, Finished; Screwed..per dozen	14.50	16.50	20.00	24.50	33.00	47.00	78.00	120.00	230.00

FOR IRON PIPE.

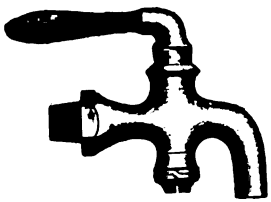

FIG. 1466.

FOR IRON PIPE, HOSE END.

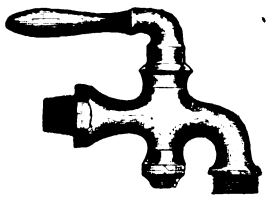

FIG. 1467.

Size..... inches	⅜	½	⅝	¾	1	1¼	1½	2
Price, Rough; for Iron Pipe .....per dozen	14.00	16.00	19.00	26.00	37.00	60.00	90.00	180.00
Price, Finished; for Iron Pipe.....per dozen	15.50	18.00	21.50	29.00	41.00	70.00	110.00	210.00
Price, Rough; for Hose and Iron Pipe..per doz	16.00	18.00	21.00	29.00	42.00	66.00	98.00	195.00
Price, Finished; for Hose and Iron Pipe.per doz	17.50	20.00	23.50	32.00	46.00	76.00	118.00	225.00

LIQUOR COCKS.

TO SCREW.

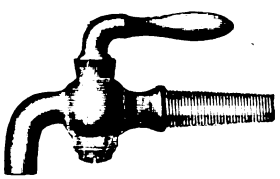

FIG. 1468.

Size ..... inches	⅜	½	⅝	¾	1
Price ..... per dozen	11.50	15.50	19.50	26.00	38.50

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

COMPRESSION BIBBS.

PLAIN, FOR IRON PIPE

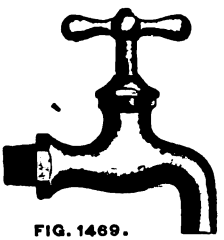

FIG. 1469.

FOR IRON PIPE, HOSE END.

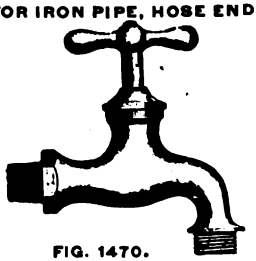

FIG. 1470.

Compression Bibbs for Lead or Iron Pipe.

Size.....inches	⅜	½	⅝	¾	1	1¼	1½	2
Price, Rough; Plain.....per dozen	11.50	12.50	15.00	19.00	36.00	57.00	88.00	180.00
Price, Finished; Plain....per dozen	12.00	13.00	16.00	20.00	40.00	65.00	100.00	200.00
Price, Rough; Hose End.....per dozen	13.50	14.50	17.00	21.00	39.00	61.00	94.00	190.00
Price, Finished; Hose End..per dozen	14.00	15.00	18.00	22.00	43.00	69.00	106.00	210.00
Price, Stuffing Box, Extra..per dozen	3.00	3.00	3.00	4.00	6.00	12.00	15.00	25.00

FULLER BIBBS.

PLAIN, FOR IRON PIPE.

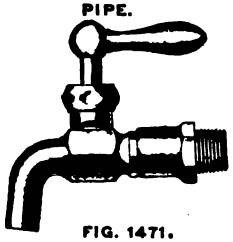

FIG. 1471.

FOR IRON PIPE, HOSE END.

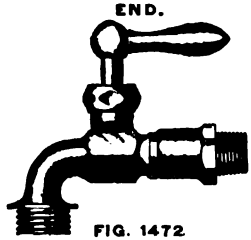

FIG. 1472

Fuller Bibbs for Lead or Iron Pipe.

Size.....inches	½	⅝	¾	1
Price, Finished; Plain.....per dozen	21.00	24.00	30.00	48.00
Price, Finished; Hose End...per dozen	24.00	28.00	34.00	52.00

SELF-CLOSING BIBBS.

DOHERTY, FOR IRON PIPE.

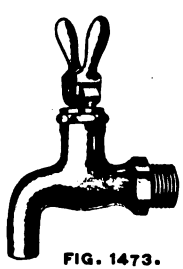

FIG. 1473.

BOSTON, FOR IRON PIPE.

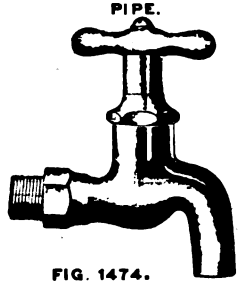

FIG. 1474.

Doherty and Boston Self-Closing Bibbs for Lead or Iron Pipe.

Size.....inches	½	⅝
Price, Doherty, Finished.....per dozen	27.00	30.00
Price, Boston, Finished.....per dozen	27.00	30.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SILL COCKS.

SILL COCK.

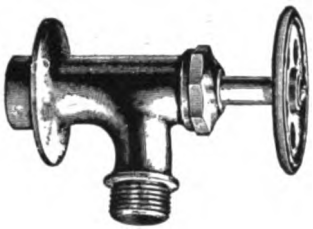

FIG. 1475.

SILL COCK, LOOSE KEY.

FIG. 1476.

Sill Cocks, ½ or ¾ Inch.

	Nickel Plated on the Rough.	Finished.	Finished and Nickel Plated.
Price, with T Handle.....per dozen	20.00	23.00	26.00
Price, with Wheel Handle.....per dozen	23.00	26.00	29.00
Price, with Loose Key.....per dozen	26.00	29.00	32.00

SOLDERING NIPPLES.

MALE.

FIG. 1477.

FEMALE.

FIG. 1478.

SOLDERING UNION.

FIG. 1479.

Soldering Nipples and Unions.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Price, Soldering Nipples, Male or Female, per dozen	1.75	2.25	3.00	4.00	5.00	7.50	10.00	14.00	28.00	40.00
Price, Soldering Unions..per dozen	2.25	2.75	3.50	4.75	6.00	8.50	12.00	18.00	.....	.....

FIG. 1480.

Ball Cocks for Iron Pipe.

Size.....inches	½	⅝	¾	1	1¼	1½	2
Price.....per dozen	14.00	16.00	24.00	36.00	60.00	90.00	170.00

Copper Balls for Ball Cocks.

Diameter.....inches	5	6	7	8	9	10	12
Price.....per dozen	4.00	6.00	9.00	15.00	25.00	40.00	60.00

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THE W. M. PATTISON SUPPLY CO. 557 CLEVELAND

BIBB WASHERS.

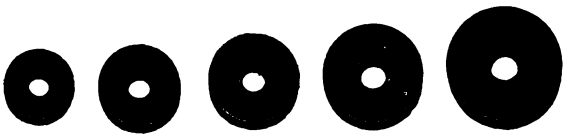

FIG. 1481.

SOLID BIBB WASHERS.

FIG. 1482.

TOP PACKING.

FIG. 1483.

Size..... inches	⅛	½	⅝	¾	1
Price, Jenkins Washers.....per 100	2.00	2.00	2.00	2.00	2.00
Price, Boss Washers.....per 100	1.00	1.00	1.00	1.00	1.00
Price, Hard Rubber Washers.....per 100	1.00	1.00	1.00	1.00	1.00
Price, Fibre Washers.....per 100	.75	.75	.75	.75	.75
Price, Top Packing.....per 100	1.00	1.00	1.00	1.00	1.00

FULLER WORK TRIMMINGS.

ECCENTRIC

FIG. 1484.

BALL STEM WITH BALL.

FIG. 1485.

RUBBER BALL

FIG. 1486.

Size..... inches	½	⅝	¾	1	1¼
Price, Eccentrics .....per dozen	3.00	3.00	4.00	6.00	.....
Price, Ball Stem with Ball.....per dozen	3.00	3.00	4.00	6.00	.....
Price, Rubber Balls.....per dozen	.75	.75	1.00	1.25	2.00

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McNAMARA HYDRANTS AND STREET WASHERS.

FIG. 1467.
No. 1.

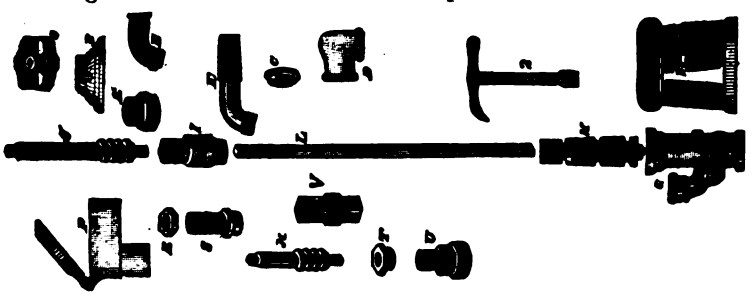
FIG. 1488.
No. 5.

FIG. 1489.
No. 2.

FIG. 1490.
No. 3.

Size ..... inches	¾	1	¾	1	¾	1	¾	1	¾	1
Length..... feet	3	3	3½	3½	4	4	4½	4½	5	5
Price, No. 1 Hydrant.....each	10.60	14.30	10.90	14.60	11.00	14.75	11.25	15.10	11.50	15.30
Price, No. 5 Hydrant.....each	9.10	13.80	9.40	14.10	9.50	14.25	9.75	14.60	10.00	14.80
Price, No. 2 Hydrant.....each	7.00	12.50	7.50	13.00	7.50	13.25	8.00	13.50	8.50	14.00
Price, No 3 Street Washer.....each	7.35	11.10	7.50	11.50	7.75	11.70	8.00	12.00	8.25	12.00

In ordering state whether for Lead or Iron Pipe.



FIG, 1491.

Order Repairs by Letter Opposite Each Part.

Part.....	B	C	D	E	F	G	H	I	J	K	L	N	O	P	R	S	T	U	V	2
Price each	.25	.15	.15	.25	.20	1.00	.50	.30	.30	.35	.15	.30	.10	.50	.15	.25	.25	.35	.30	.10

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

M HYDRANTS AND STREET WASHERS.

FIG. 1492.

FIG. 1483.

Size.....inches	¾	1	¾	1	¾	1	¾	1	¾	1
Length.....feet	2	2	2½	2½	3	3	3½	3½	4	4
Price, Hydrants.....each	9.00	11.50	10.00	12.50	10.00	12.50	11.00	13.50	11.00	13.50
Price, Street Washers..each	7.50	9.00	8.50	10.00	8.50	10.00	9.50	11.00	9.50	11.00

In Ordering state whether for Lead or Iron Pipe.

FIG. 1494.

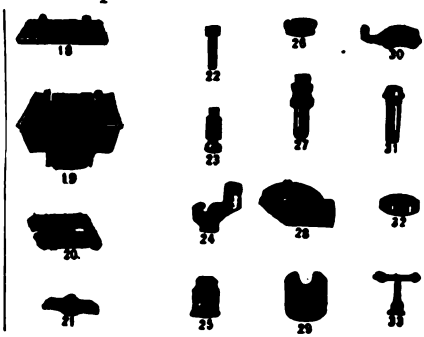

FIG. 1495.

Order Repairs by Number Under Each Part.

Part Number.....	0	1	2	3	4	5	6	7	8	9	10	11
Price.....each	.12	.40	.25	.05	.10	.30	.60	.25	.75	.15	.40	.30
Part Number.....	12	13	14	15	16	17	18	19	20	21	22	23
Price.....each	.10	.15	.40	.10	.25	.10	.25	.50	.25	.10	.10	.30
Part Number.....	24	25	26	27	28	29	30	31	32	33	.....	.....
Price.....each	.50	.75	.15	.40	.30	.10	.15	.40	.10	.20	.....	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

MATHEWS FIRE HYDRANTS.

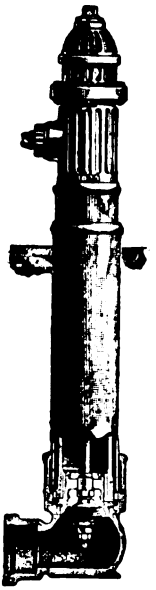

FIG. 1496.

SECTIONAL.

FIG. 1497.

Size, Valve Opening, In.	PRICE. Single Valve Hydrants, With Sliding Frost Case.	Length From Pavement to Bottom of Pipe, Feet.					
		2½ or 3	3½ or 4	4½ or 5	5½ or 6	7	8
4	One Hose Discharge	30.00	31.00	32.00	33.00	35.00	37.00
4	Two Hose Discharge	32.00	33.00	34.00	35.00	37.00	39.00
4½	Steamer Discharge	36.00	37.00	38.00	39.00	41.00	43.00
4½	Two Hose Discharge	36.00	37.00	38.00	39.00	41.00	43.00
4½	Steamer and One Hose Discharge	38.00	39.00	40.00	41.00	43.00	45.00
4½	Steamer and Two Hose Discharge	40.00	41.00	42.00	43.00	45.00	47.00
5	Steamer Discharge	42.00	43.00	44.00	45.00	47.00	49.00
5	Two Hose Discharge	42.00	43.00	44.00	45.00	47.00	49.00
5	Three Hose Discharge	44.00	45.00	46.00	47.00	49.00	51.00
5	Steamer and One Hose Discharge	44.00	45.00	46.00	47.00	49.00	51.00
5	Steamer and Two Hose Discharge	46.00	47.00	48.00	49.00	51.00	53.00
6	Steamer Discharge	46.00	48.00	50.00	52.00	55.00	58.00
6	Two Hose Discharge	46.00	48.00	50.00	52.00	55.00	58.00
6	Three Hose Discharge	48.00	50.00	52.00	54.00	57.00	60.00
6	Four Hose Discharge	50.00	52.00	54.00	56.00	59.00	62.00
6	Steamer and Two Hose Discharge	50.00	52.00	54.00	56.00	59.00	62.00
6	Double Steamer Discharge	50.00	52.00	54.00	56.00	59.00	62.00

Add to Above Lists for Double Valve Hydrants; 4 and 4½ inch, 12.00: 5 and 6 inch, 15.00. Independent Nozzle Cut Off; Hose Discharge, 4.00: Steamer Discharge, 6.00. Secondary Gates; 4 inch for 4 or 6 inch Pipe, 12.50: 5 inch for 6 inch Pipe, 15.50. 6 inch for 6 inch Pipe, 18.50.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 561

MATHEWS WATER CRANE.

WATER CRANE.

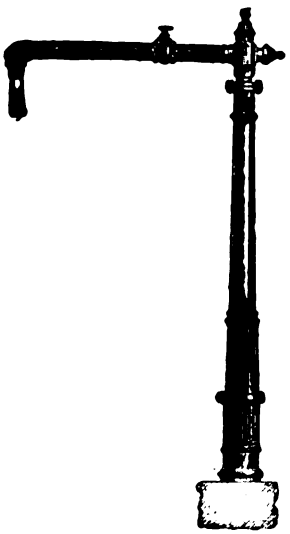

FIG. 1498.

SHOWING CRANE REMOVED.

FIG. 1499.

WATER CRANE, HYDRANT ATTACHMENT.

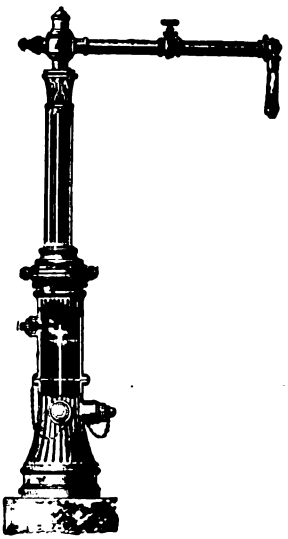

FIG. 1500.

Price, Water Crane	each	60.00
Price, Water Crane, with Hydrant Attachment	each	90.00

The weight of the Crane Attachment necessitates a heavier base hydrant hence it cannot be applied to the regular pattern.

The Water Crane is lighter in weight than that for hydrant attachment, but has the regular valve, waste and frost case.

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SERVICE BOXES.

2 1-2 INCH BOX.

FIG 1501.

3 INCH BOX.

FIG. 1502.

EXTENSION SECTION.

FIG. 1503.

COVERS, KEYS AND BOLTS.

FIG. 1504.

FIG. 1505.

ENLARGED BASE.

FIG. 1506.

Service Boxes, 2½ Inch Diameter.

Number	88	89 A.	90 B.	91 C.	92 C.	92 D.	93 D.
Extension.....inches	12	12–20	18–26	21–33	24–38	24–42	36–48
Price.....each	.55	.60	.65	.70	.73	.75	.80

Number	93 E.	94 D.	94 E.	95 E.	100 E.	100 F.	.....
Extension.....inches	36–54	42–57	42–60	48–66	54–72	54–78	.....
Price.....each	.83	.85	.90	1.00	1.05	1.10	.....

Service Boxes, 3 Inch Diameter.

Number	0	1	1½	2	3	4	5	7
Extension.....inches	10	13–21	18–28	24–39	32–48	34–58	42–66	48–72
Price..... each	.65	.80	.85	.90	1.00	1.05	1.15	1.30

Extension Sections.

Number	151	152	153	154	155	156	157
Increasing Length of Box.....in.	9½	16½	28	33	20	24	30
Price, 2½ Inch Diameter....each	.45	.55	.65	.75	.....	.....	.....
Price, 3 Inch Diameter.....each	.....	.....	.....	.....	.55	.60	.65

Enlarged Base, for 3 Inch Boxes, to Use with 2 Inch Cocks.

Price.....each	1.50

Covers, Keys and Bolts.

Price, Covers.....each	.35
Price, Keys.....each	.15
Price, Bolts.....each	.20

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SERVICE BOXES.

3 INCH BOX WITH STOP COCK HOLDER.

FIG. 1507.

2 1-2 INCH BOX WITH ROD AND GUIDE RING.

FIG. 1508.

GUIDE RING.

FIG. 1509.

ROD AND CLAMP.

FIG. 1510.

COMBINATION KEY.

FIG. 1511.

Service Boxes, 2½ Inch Diameter, with Stop-Cock Holder.

Number	288	289	290	291	292	293	294	295	296	297	298	299	300
Extension...inches	12	12–20	18–26	21–33	24–38	24–42	36–48	36–54	42–57	42–60	48–66	54–72	54–78
Price.....each	.70	.75	.80	.85	.88	.90	.95	.98	1.00	1.05	1.15	1.20	1.25

Service Boxes, 3 Inch Diameter, with Stop Cock Holder.

Number	100	101	101½	102	103	104	105	107
Extension .....inches	10	13–21½	18–28	24–36	32–48	34–58	42–66	48–72
Price..... each	.80	.95	1.00	1.05	1.15	1.20	1.30	1.45

Service Boxes, 2½ Inch Diameter, with Rod and Guide Ring.

Number	388	389	390	391	392	393	394	395	396	397	398	399	400
Extension Inc's	12	12–20	18–26	21–32	24–38	24–42	36–48	36–54	42–57	42–60	48–66	54–72	54–78
Price..... each	.80	.85	.90	.95	.98	1.00	1.05	1.13	1.15	1.20	1.30	1.35	1.40

For Extension Sections See Page 562.

Guide Rings, Rods and Clamps, Combination Keys and Stop Cock Holders.

Price, Guide Rings.....each	.20
Price, Rod and Clamp for Boxes to No. 393.....each	.50
Price, Rod and Clamp for Boxes from No. 394 up.....each	.60
Price, Combination Keys.....each	.35
Price, Stop Cock Holders, not illustrated.....each	.20

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VALVE BOXES.

VALVE BOX.

FIG. 1512.

SQUARE HEAD FOR VALVE BOX.

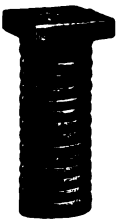

FIG. 1513.

EXTENSION SECTION.

FIG. 1514.

REGULAR COVERS.

FIG. 1515.

FLANGED COVER.

FIG. 1516.

LOCK COVER.

FIG. 1517.

Valve Boxes, 5¼ Inch Shaft, No. 6 Base.

Number	AAA.	AA.	A.	B.	C.	CC.	D.	DD.	E.	F.	G.	H.
Extension...in.	17	22–28	28–40	36–48	42–54	48–60	42–65	48–72	60–72	60–84	72–84	72–96
Price.....each	3.25	3.80	4.00	4.20	4.40	4.65	4.85	5.10	5.25	5.50	5.75	6.00

Square Head Valve Boxes, same price as above.

Extension Sections.

Number		58
Increasing Length of Box	inches	14
Price	each	.65

Bases for Valve Boxes.

Number..	4. Round, For 4 Inch Valves.	6. Round, For 6 and 8 Inch Valves.	8. Round, For 10 Inch Round Valves.	16. Round, For 12 Inch Round Valves.	160. Oval, For 10, 12 and 16 Inch Oval Valves.	162. Oval, For 18 and 20 Inch Oval Valves.
	Deduct from Net Price of Box.	Included in Net Price of Box.	Add to Net Price of Box.	Add to Net Price of Box.	Add to Net Price of Box.	Add to Net Price of Box.
Price ..ea.	.25	....	.25	1.25	.35	1.25

Covers for Valve Boxes.

Price, Regular and Flanged	each	1.00
Price, Lock	each	1.25

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 565

ROADWAY BOXES.

ROUND TOP, OPEN BASE. | ROUND TOP, FLANGED BASE. | SQUARE TOP, OPEN BASE. | SQUARE TOP, FLANGED BASE. | PLUG COVER.

FIG. 1518.

FIG. 1519.

FIG. 1520.

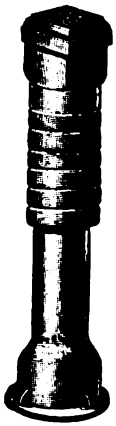

FIG. 1521.

FIG. 1522.

LOCK COVER.

FIG. 1523.

Roadway Boxes, 4¼ Inch Shaft, Flanged Base.

Number	41Q	42Q	42R	43R	44R	45R
Extension.....inches	18–24	27–34	27–42	34–48	39–54	46–60
Price.....each	2.45	2.65	2.95	3.10	3.20	3.30

Roadway Boxes, 4¼ Inch Shaft, Open Base.

Number	141Q	142Q	142R	143R	144R	145R
Extension.....inches	18–24	27–34	27–42	34–48	39–54	46–60
Price.....each	2.45	2.65	2.95	3.10	3.20	3.30

Extension Section.

Number	49
Increases Length of Box.....inches	18
Price.....each	1.00

Covers for Roadway Boxes.

Price, Plug Covers.....each	1.00
Price, Lock Covers.....each	1.25

Roadway Boxes are for water or gas, of double thick metal and extra large diameter for 3 inch valves and large Services.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

METER AND GAS DRIP BOXES.

METER BOX.

FIG. 1524.

EXTENSION SECTION.

FIG. 1525.

GAS DRIP BOX.

FIG. 1526.

METER FRAME AND COVER.

FIG. 1527.

Meter Boxes, Lock Cover, for ½ and ⅝ Inch Meters.

Number		173
Extension	inches	28 to 38
Price	each	3.50

Extension Sections.

Number		71
Increasing Length of Box	inches	14
Price	each	1.00

Gas Drip Boxes.

Number		178
Length	inches	16
Price	each	3.00

Extension Test Valve Boxes, not Illustrated.

Number		200	201
Extension	inches	18 to 26	24 to 37
Price	each	5.50	6.50
Price, No. 100 Extension, Increasing Length of Box 12 inches	each	1.25	

Meter Frames and Covers.

Size	inches	24x24
Price, Medium Weight	each	6.00
Price, Heavy	each	8.00
Price, Extra Heavy	each	18.00

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CESSPOOLS AND FLOOR DRAINS.

CESSPOOL WITH BELL TRAP AND HINGED STRAINER.

CESSPOOL WITH BELL TRAP.

FIG. 1528.

FIG. 1529.

SECTIONAL VIEW OF BELL TRAP.

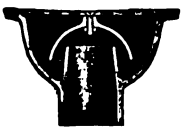

FIG. 1530.

Cesspools.

Size.....inches	6 x 6	9 x 9	13 x 13
Size of Outlet.....inches	2	3	4
Price, Standard with Bell Trap.....each	.75	1.00	2.50
Price, Extra Heavy with Bell Trap.....each	.....	1.50	3.75
Price, Standard with Bell Trap and Hinged Strainer.....each	1.00	1.35	3.00
Price, Extra Heavy with Bell Trap and Hinged Strainer.....each	.....	1.85	4.25
Price, Added to List if Outlet is Tapped for Iron Pipe.....each	1.00	1.25	2.25

CESSPOOL WITH BELL TRAP AND GRATING.

FIG. 1531.

SECTIONAL VIEW OF BELL TRAP AND GRATING.

FIG. 1532.

SEWER TRAP.

FIG. 1533.

Cesspools and Sewer Traps.

Size.....inches	12 x 12	16 x 16	18 x 18
Depth.....inches	10	10	10
Size of Outlet.....inches	4	4	4
Price, Cesspool with Bell Trap and Grating...each	3.75	4.50	10.00
Price, Sewer Trap.....each	.....	2.50	.....

BRASS FLOOR DRAIN WITH TRAP.

FIG. 1534.

Brass Floor Drains.

Price.....each	7.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CAST IRON SINKS.

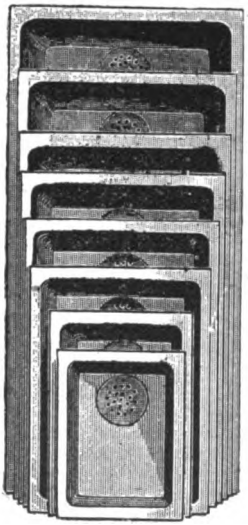

FIG 1535.

Size Inches.		Price, Plain, Each.	Price, Galvanized, Each.	Price, Enameled, Each,
12x18		1.25	2.60	4.75
14x20		1.50	3.20	6.00
15x27		2.00	4.25	7.25
16x21		1.80	4.00	6.50
16x28		2.10	4.50	7.50
16x30		2.25	4.75	7.75
18x24		2.10	4.30	7.00
18x30		2.50	5.10	8.50
18x32		3.00	6.25	9.50
18x36		3.00	6.50	9.50
20x24		2.40	5.00	7.50
20x30		3.00	6.25	9.00
20x36		3.70	7.75	10.50
20x38		3.80	8.00	11.00
20x40		4.00	8.50	11.50
20x42		4.25	9.00	12.00
20x48		5.30	11.50	13.25
22x42		4.25	9.00	12.00
22x48		5.75	12.25	15.00
22x62		10.75	22.00	26.00
22x76		15.00	32.00	40.00
24x50		7.50	16.00	18.00
	Add to List for Patent Overflow with Open Strainer.....each	1.00	1.00	1.25
	Add to List for Patent Overflow with Plug Strainer.....each	1.25	1.25	1.50

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 569

CAST IRON SINKS.

SLOP SINK

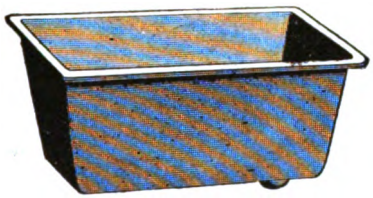

FIG. 1536.

Slop Sinks, 2 Inch Outlet.

Size ..... inches	16 x 16	20 x 14	20 x 16	23 x 15	24 x 20	30 x 20	36 x 20	48 x 20	60 x 20
Depth.....inches	10	12	12	15	12	12	12	12	12
Price, Painted...each	2.70	3.50	4.00	4.25	5.00	8.00	10.00	13.50	18.00
Price, Galvanized, each	5.25	6.50	8.25	8.00	9.50	15.00	19.00	24.00	31.50
Price, Enameled..each	7.50	8.50	10.00	11.00	11.50	16.00	20.00	27.00	39.00

Add for Patent Overflow, 1.00; Patent Overflow and Plug Strainer, 1.50.

CORNER SINK.

FIG. 1537.

HALF ROUND SINK.

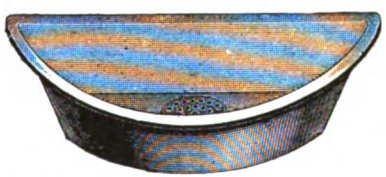

FIG. 1538.

Corner and Half Round Sinks.

Number.	Side, Inches.	Front, Inches.	Price Painted, Each.	Price Galvanized, Each.	Price Enameled, Each.	Number.	Back, Inches.	Width, Inches.	Price Painted, Each.	Price Galvanized, Each.	Price Enameled, Each.
1	17	25	1.25	2.75	6.00	1	24	14	1.50	3.25	6.00
2	20	28	1.75	3.50	7.00	2	27	15	1.80	3.90	7.00
3	22	31	2.10	4.20	8.00	3	29	16	2.00	4.75	8.00
						4	31½	17	2 25	5.00	9.00

HYDRANT CESSPOOL.

FIG. 1539.

HYDRANT CESSPOOL WITH BELL TRAP.

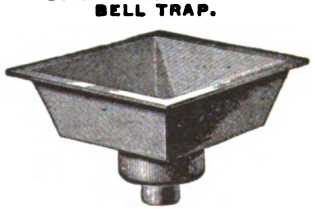

FIG. 1540.

Hydrant Cesspools.

Size .....inches	12 x 12	14 x 14	16 x 16	18 x 18
Depth .....inches	6	6	6	6
Price..... .....each	1.00	1.15	1.30	1.60
Price, with Bell Trap.....each	1.50	1.65	1.80	2.10

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SINK BACKS AND FITTINGS.

SINK BACK.

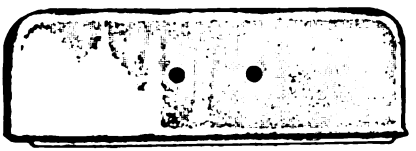

FIG. 1541.

SINK BRACKET.

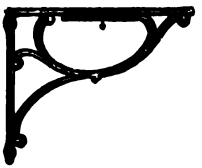

FIG. 1542.

Sink Backs.

Size, Length.....inches	24	30	36	40	42	48
Price, Galvanized or Enameled....each	2.50	3.00	3.65	4.35	4.85	5.75

Sink Brackets.

Number	1	2	3	4
For Sinks, width.....inches	14	18	20	22
Price, Plain.....per pair	1.00	1.00	1.40	1.40
Price, Galvanized.....per pair	2.00	2.00	2.50	2.50

SINK STRAINER.

FIG. 1543.

SINK COUPLING.

FIG. 1544.

SINK COUPLING, TAPPED FOR IRON PIPE.

FIG. 1545.

SINK PLUG.

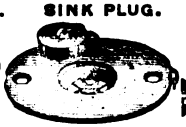

FIG 1546.

SINK BOLT

FIG. 1547.

Price, P't'd doz.	1.50	Per Doz.....	1.50	Each.....	.75	Per Dozen	4.00	Iron, Per Doz.	.40
Price, Galv'd doz.	2.60	Per Doz.....	2.00	Each.....	.90	Per Dozen	5.00	Brass, Per Doz.	1.00
Price, Enam'd doz.	3.00					Per Dozen	6.00		
Price, Brass doz.	9.00					Per Dozen	12.00		

Cesspool Plates.

FIG. 1548. No. 1.

FIG. 1549 No. 2.

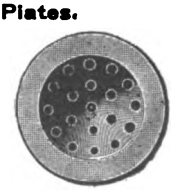

FIG. 1550. No. 3.

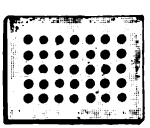

FIG. 1551. No. 4.

Size.....inches	4	5	6	7	8	9	10	11	12	6x10
Price, No. 1, 2 and 3... each	.20	.25	.30	.40	.60	.70	.80	.90	1.00	.....
Price, No. 4..... each	....	.....	.....	.....	.....	.....	.....	.....	.....	.65

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

MANHOLE COVERS, ETC.

MANHOLE CURB.

CATCH BASIN CURB.

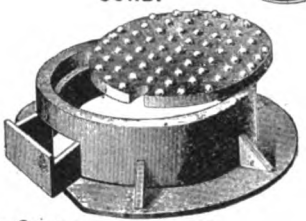


FIG. 1552. **Manhole and Catch Basin Curbs.** FIG. 1553.

	Diameter of Opening, Inches.	Height, Inches.	Outside Diameter, Inches	Weight, Pounds.	Price, Manhole Curb, Each.	Price, Catch Basin Curb, Each.
Medium Pattern...	20½	9	36	3.40	11.00	12.00
Standard Pattern..	21	9	36	5.10	15.00	16.50

STONE SEWER OR CATCH BASIN COVER.

SIDEWALK CATCH BASIN CURB.

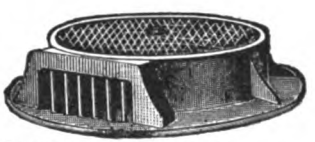


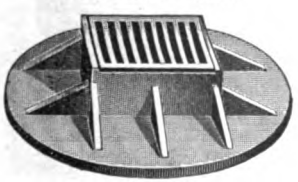
FIG. 1554. **Stone Sewer or Catch Basin Covers.** FIG. 1555.

Price, Stone Covers, 30 or 36 inches in diameter.....each	5.00
Price, Iron Manhole Plates, 18 inches in diameter.....each	.75
Price, Iron Covers, 36 inches in diameter with 19 inch plates.....each	6.25

Sidewalk Catch Basin Curbs.

Diameter of Opening, Inches.	Height, Inches	Drainage Inlet, Inches.	Weight, Pounds.	Price, Each.
19½	5½	4 x 10	190	9.00

SIDEWALK DRAIN.



GUTTER CURB.

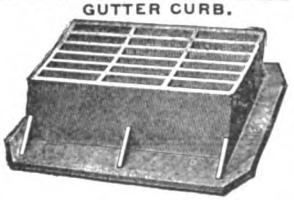


FIG. 1556. **Sidewalk Drains.** FIG. 1557.

Diameter of Opening, Inches.	Height, Inches.	Weight, Pounds	Price, Each.
8 x 12	4	125	7.00

Gutter Curbs.

Price, Complete with Pan and Grate.....each	17.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STABLE FIXTURES.

SQUARE FEED BOX.

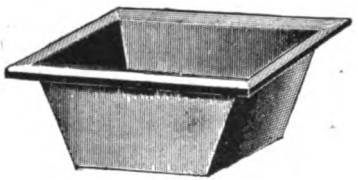

FIG. 1558.

CORNER FEED BOX.

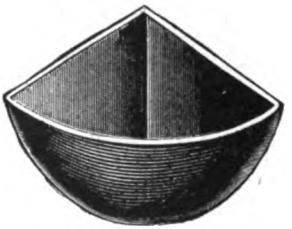

FIG. 1559.

Square Feed Boxes.

Size.....inches	16x16x10	20x14x12
Price, Plain.....each	2.70	3.50
Price, Galvanized.....each	5.25	6.50
Price, Enameled.....each	7.50	8.50

Corner Feed Boxes.

Size, Length on Sides.....inches	16
Price, Plain.....each	2.50
Price Galvanized.....each	5.00
Price, Enameled.....each	7.00

CORNER HAY RACK.

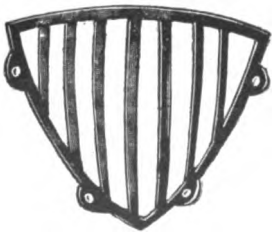

FIG. 1560.

HALF ROUND HAY RACK.

FIG. 1561.

Corner Hay Racks.

Size, Length on Sides.....inches	33
Price, Plain.....each	2.75
Price, Galvanized.....each	5.00

Half Round Hay Racks.

Size, Length on Back.....inches	48
Price, Plain.....each	5.00
Price, Galvanized.....each	9.00

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THE W. M. PATTISON SUPPLY CO. 573 CLEVELAND

WATER METERS.

NIAGARA

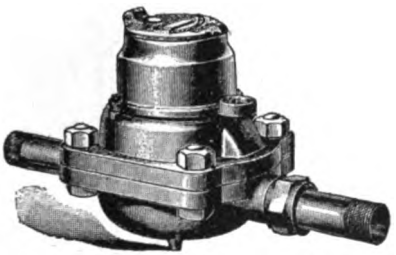

FIG. 1562

AMERICAN.

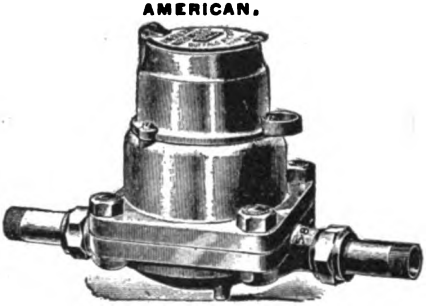

FIG. 1563.

Niagara Water Meters.

Size of Meter, Inches.	Price with Galvanized Iron Case, Each.	Price with Gun Metal Case, Each.	Price, Couplings.	Price, Short Strainers, Each.	Greatest Proper Quantity per Minute, Cubic Feet.	Dimensions, Inches.			Weight of Meter only, Pounds.
						Length.	Height.	Width.	
⅝	10.00	13.35	.70	.20	2	7¼	6¼	5	10½
¾	10.00	13.35	1.00	.30	4	7¼	6¼	5	10½
1	20.00	26.70	1.35	.40	8	10⅛	7¼	8½	19½
1½	35.00	50.00	2.50	.80	12	13¼	9¼	10¾	39½
2	50.00	83.35	3.35	1.00	20	15½	10	13	68

American Water Meters.

Size of Meter, Inches.	Price with Galvanized Iron Case, Each.	Price with Gun Metal Case, Each.	Price, Couplings.	Price, Short Strainers, Each.	Greatest Proper Quantity per Minute, Cubic Feet.	Dimensions, Inches.			Weight of Meter only, Pounds.
						Length.	Height.	Width.	
¾	12.00	15.00	.70	.20	2	7¼	6¾	5	11¼
1	18.00	22.50	1.00	.30	4	9	7¾	8	18½
1½	24.00	30.00	1.35	.40	8	10⅞	8½	8⅝	26
2	46.70	58.35	2.50	.80	12	13¼	9½	11⅛	46

Niagara Special Oil Meters.

Size of Meter.....inches	⅝	¾	1	1½	2
Price, with Couplings and Gauze Strainers.....each	10.00	10.00	18.00	32.00	45.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

WATER METERS.

WORTHINGTON.

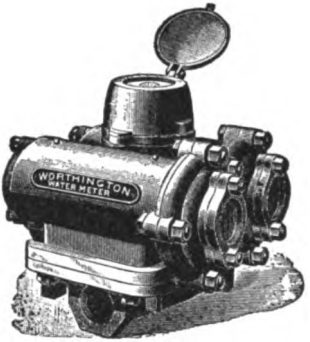

FIG. 1564.

Size.....inches	⅝	¾	1	1½	2	3	4	6
Price.....each	19.00	28.00	39.00	45.00	55.00	130.00	375.00	900.00
Price, Couplings.....	.95	1.10	1.50	2.75	3.50	2.00	3.00	5.00
Price, Pot Strainers....each	3.50	3.50	6.00	6.00	7.50	15.00	25.00	.....
Price, Side Strainers..each	.....	.....	.....	15.00	17.00	22.00	25.00	28.00
Greatest Proper Quantity per Minute ..... Cubic Feet	1½	3	5	6	8	18	60	120
Greatest Proper Quantity per Minute ..... Gallons ...	11¼	22½	37½	45	60	135	450	900

3, 4 and 6 inch Couplings, Screw Flanges.

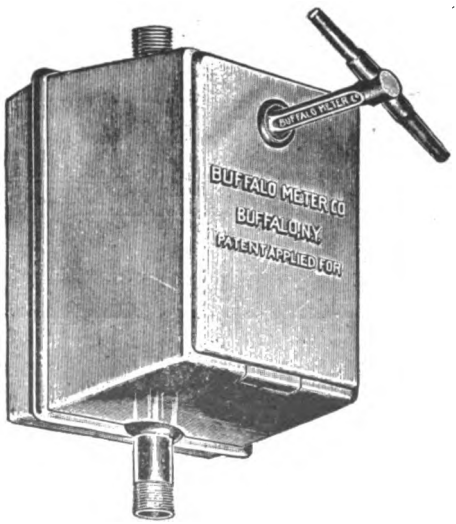

FIG. 1565.

Iron Lock Box.

For inclosing ½ and ⅝ inch American and ½, ⅝ and ¾ inch Niagara Water Meters.

Price .....each	3.00

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THE W M PATTISON SUPPLY CO. 575 CLEVELAND

DIGG'S FIRE EXTINGUISHERS.

UPRIGHT.

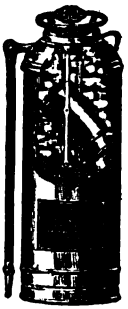

FIG. 1566.

AUTOMATIC REVERSIBLE.

FIG. 1567.

Upright and Automatic Fire Extinguishers.

Capacity	gallons	3	5
Price, Polished Copper.....	each	15.00	25.00
Price, Nickel Plated.....	each	16.00	26.00

BRACKETS, FOR FIRE EXTINGUISHERS.

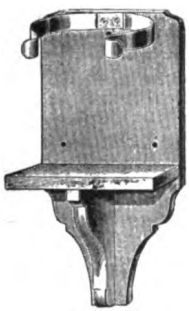

FIG. 1568.

DRY POWDER FIRE EXTINGUISHER.

FIG. 1569.

Price, Brackets to Match Woodwork of Building.....	each	1.50

Fire Appliances for Appartment Houses, Office Buildings, Factories, Etc.

FIG. 1570.

FIG. 1571.

FIG. 1572.

Prices on Application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

FIRE BUCKETS.

GALVANIZED IRON, FLAT BOTTOM.

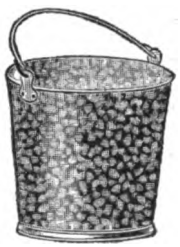

FIG. 1573.

GALVANIZED IRON, ROUND BOTTOM.

FIG. 1574.

FIBRE, ROUND BOTTOM.

FIG. 1575.

Galvanized Fire Buckets.

Capacity ..... quarts	10	12	14	16
Price, Flat Bottom..... per dozen	4.50	5.00	5.50	7.50
Price, Round Bottom..... per dozen	6.75	7.25	7.50	.....
Price, Covers for Buckets..... per dozen	2.00	2.25	2.50	3.00

Buckets painted red, 1.00 per dozen, Net. Covers painted red, 25 cents per dozen, Net.

Fibre Fire Buckets.

Capacity ..... quarts	12
Dimensions, Depth and Diameter ..... inches	11
Price..... per dozen	4.20
Price, Covers..... per dozen	1.60
Price, red band painted around top..... each	.60

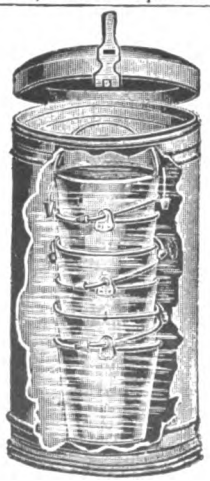

FIG. 1576

Safety Fire Bucket Tank.

Number.....	1	2
Height..... inches	27	34
Diameter..... inches	15½	18
Number of Buckets in Tank.....	6	6
Capacity of Buckets..... quarts	10	14
Price, with Buckets and Chemical.. each	16.00	18.00

An Air Tight Tank containing a supply of Chemical Solution and six Fire Buckets, with self raising handles. The Tank and Buckets are made of heavy galvanized iron lined to prevent rust.

The Tank is Japanned red outside and has hinged cover closing on a rubber packing, making it air tight and preventing evaporation. The handles of the Buckets are weighted so that when the top bucket is removed the handle of the next raises Automatically. Every Tank is accompanied by a bag of dry compound.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 577

HOSE PIPES.

UNDERWRITERS.

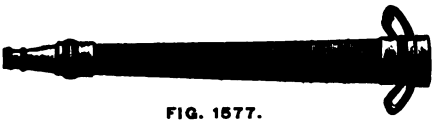

FIG. 1577.

SCREW TIP.

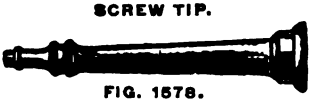

FIG. 1578.

Underwriters Hose Pipes.

Size.....inches	2	2½	2½	2½
Length.....inches	20	24	30	36
Price, Wound and Painted.....each	9.00	11.00	12.00	15.00
Price, Plain Brass.....each	7.50	9.50	11.00	13.50
Price, Wound and Painted without Handles....each	6.50	8.50	10.00	12.50
Price, Rubber Tube, Swivel Handles.....each	.....	.....	15.00	18.00
Price, Leather Tube, Swivel Handles.....each	.....	.....	.....	18.00

Hose Pipes, Screw Tip.

Size.....inches	¾	¾	1	1	1¼	1½	1½	1½
Length.....inches	7½	12	8½	12½	12	15	13	15
Price, Hose Thread, per dozen	8.00	10.00	10.00	12.00	20.00	24.00	25.00	30.00
Price, Pipe Thread, per dozen	9.20	11.20	11.20	13.20	21.20	25.00	27.50	32.50

Size.....inches	2	2	2	2½	2½	2½	2½	2½
Length.....inches	12	15	20	15	20	24	30	36
Price, Hose Thread, per dozen	38.00	45.00	50.00	75.00	96.00	100.00	144.00	157.00
Price, Pipe Thread, per dozen	41.00	48.00	53.00	78.50	99.50	103.50	150.00	163.00

PLAIN.

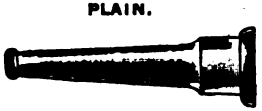

FIG. 1579.

WITH COCK.

FIG. 1580.

Plain Hose Pipes.

Size.....inches	¼	1	1¼	1½	2	2	2½	2½
Length.....inches	3	4	4¾	5¾	6¾	12	7½	15
Price, Hose Thread....per dozen	4.00	5.00	12.00	18.00	26.00	34.00	37.00	65.00
Price, Pipe Thread.....per dozen	5.00	6.25	13.75	19.75	29.00	39.00	39.50	70.00

Hose Pipes, with Cock.

Size.....inches	¾	¾	1	1	1¼	1½	2	2	2½	2½
Length.....inches	8	12	8	12	12	12	12	20	20	24
Price, Hose Thread, per doz.	13.00	18.00	15.00	20.00	40.00	55.00	80.00	110.00	160.00	175.00
Price, Pipe Thread, per doz.	14.20	19.20	18.00	23.00	43.00	60.00	83.00	113.00	170.00	185.00

FULLER.

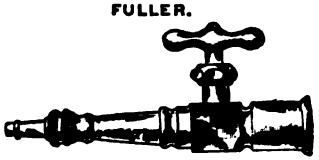

FIG. 1581.

GEM.

FIG. 1582.

Fuller Hose Pipes.

Size.....inches	¾	1
Price.....per dozen	18.00	30.00

Gem Hose Pipes.

Size.....inches	¾	1
Price.....per dozen	10.00	15.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 578

HOSE COUPLINGS AND MENDERS.

SHERMAN.

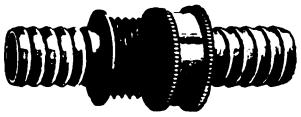

FIG. 1583.

PLAIN.

FIG. 1584.

LUG.

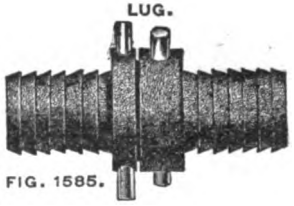

FIG. 1585.

Sherman Hose Couplings.

Size ..... inches	½	¾
Price ..... per dozen	2.40	2.40

Plain and Lug Hose Couplings.

Size .. .. inches	½	¾	1	1¼	1½	2	2½
Price, Hose Thread...per dozen	2.40	2.40	4.40	10.00	14.00	24.00	48.00
Price, Pipe Thread....per dozen	2.65	2.65	4.65	10.50	15.00	26.00	50.00
Price, Female Half, Hose Thread...per dozen	1.80	1.80	3.00	7.20	9.60	16.20	31.80
Price, Female Half, Pipe Thread...per dozen	1.80	1.80	3.25	7.80	10.80	17.40	32.80

Size ..... inches	3	3½	4	5	6	8	.....
Price, Hose Thread...:per dozen	75.00	.....	.....	.....	.....	.....	.....
Price, Pipe Thread....per dozen	76.00	120.00	150.00	250.00	350.00	504.00	.....

STEAM

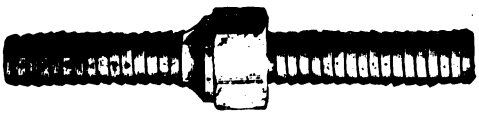

FIG. 1586.

ROCK DRILL.

FIG. 1587.

Steam Hose Couplings.

Size ..... inches	½	¾	1	1¼	1½	2	2½
Price, Hose Thread...per dozen	15.00	15.00	18.00	24.00	30.00	42.00	72.00
Price, Pipe Thread....per dozen	15.50	15.50	19.00	25.50	32.00	44.00	75.00
Price, Female Half, Hose Thread...per dozen	10.00	10.00	12.00	16.00	20.00	28.00	48.00
Price, Female Half, Pipe Thread...per dozen	10.35	10.35	12.75	17.00	21.50	30.00	50.00

Rock Drill Hose Couplings.

Size ..... inches	¾	1
Price ..... each	5.25	6.00

Hose Menders.

IRON.

FIG. 1588.

BRASS.

FIG. 1589.

Size ..... inches	½	¾	1
Price, Iron ..... per dozen	.....	1.00	1.50
Price, Brass ..... per dozen	1.20	1.20	.....

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HOSE COUPLINGS AND BANDS.

EXPANSION RING COUPLING.

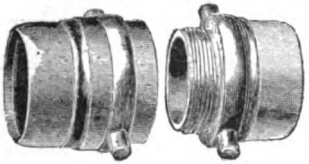

FIG. 1590.

EXPANSION RING.

FIG. 1591

Size..... inches	1½	2	2½ Light.	2½ Medium.	2½ Extra Heavy.
Price ..... per set	2.00	2.50	3.00	3.00	3.00

Expanding Rings per dozen, 2.00.

Hose Clamps.

SHERMAN.

FIG 1592.

SHERMAN MENDER CLAMP.

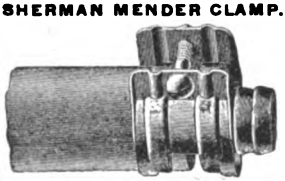

FIG. 1593.

AJAX.

FIG. 1594.

Sherman Hose Clamps.

Size.....inches	½	½	½	¾	¾	¾	1	1
Hose .....ply	2	3	4	2	3	4	3	4
Price.....per dozen	.60	.60	.60	.60	.60	.60	2.00	2.00
Size.....inches	1¼	1¼	1½	1½	2	2	2½	2½
Hose .....ply	3	4	3	4	3	4	3	4
Price.....per dozen	2.50	2.50	3.00	3.00	4.00	4.00	7.00	7.00

Sherman Steam Hose Clamps.

Size ..... inches	¾	¾	1	1	1¼	1¼	1½	1½	1½	2	2
Hose.....ply	3	4	3	4	3	4	3	4	5	3	4
Price....per dozen	2.00	2.00	2.50	2.50	3.00	3.00	3.50	3.50	4.00	5.50	5.50

Sherman Mender Clamps.

Size .....inches	½	¾
Price.... .....per dozen	2.40	2.40

Ajax Hose Clamps.

Size.....inches	½	¾	1	1¼	1½	2	2½	3
Price.....per dozen	2.00	2.00	3.50	4.50	5.50	6.75	8.00	12.00

Ajax Special Galvanized Steel Hose Clamps.

Size.....inches	2	2½	3	4	5	6
Price.....per dozen	7.20	8.40	9.60	14.40	19.20	24.00

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HOSE FITTINGS.

SUSHING.

FIG 1595.

REDUCER.

FIG. 1596.

MALE NIPPLE.

FIG. 1597.

FEMALE NIPPLE

FIG. 1598.

Hose Bushings and Reducers.

Size ..... inches	1 x ¾	1¼x¾	1¼x1	1½x¾	1½x1	1½x1¼	2x¾	2x1	2x1¼
Price....per dozen	6.50	8.00	10.00	11.50	11.50	12.00	13.00	14.00	16.00

Size ..... inches	2x1½	2½x¾	2½x1	2½x1¼	2½x1½	2½x2	3x2	3x2½	.....
Price....per dozen	18.00	20.00	22.00	23.00	24.00	26.00	30.00	36.00	.....

Bushings and Reducers have Hose thread on both male and female ends.

Male or Female Hose Nipples.

Size.... .....inches	½	¾	1	1¼	1½	2	2½	3	3½	4
Price.....per dozen	3.50	3.50	5.00	9.00	10.00	14.00	28.00	40.00	50.00	75.00

Male Hose Nipples have Hose thread one end and iron pipe thread on other end; except 3 inch, both ends for iron pipe. Female Hose Nipples have hose thread on male end; iron pipe thread on female end.

BIBB END.

FIG. 1599.

GOOSE NECK SCREW.

FIG. 1600.

SPANNER

FIG. 1601.

SPRINKLER.

FIG. 1602.

Bibb Ends, Goose Neck Screws and Spanners.

Size.....inches	½	⅝	¾	1	1¼	1½	2	2½
Price, Hose Bibb Ends.....per dozen	2.50	2.50	2.50	3.50	6.00	8.00	15.00	24.00
Price, Goose Neck Screws ...per dozen	5.00	.....	6.50	.....	.....	.....	.....	.....
Price, Spanners.....each	.....	.....	.....	.....	.12	.15	.20	.25

Sprinklers.

Diameter.....inches	1½	1¾	2	2¼	2½	3
Size Thread.....inches	⅜	⅜	¾	¾	1	1¼
Price.....per dozen	3.25	3.50	4.50	5.25	6.00	9.00

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HOSE FITTINGS.

SUCTION STRAINER.

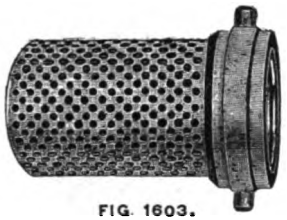

FIG. 1603.

HOSE CAP.

FIG. 1604.

FIRE HOSE REDUCER.

FIG. 1605.

Suction Strainers and Hose Caps.

Size..... inches	¾	1	1¼	1½	2	2½	3	3½	4	4½	5	6
Price, Suction Strainers ea.				7.50	7.50	8.50	10.00	15.00	19.00	25.00	31.00	46.00
Price, Hose Caps .....each	.35	.50	.70	.90	1.25	2.00	2.60	3.25	3.60	.....	.....	.....

Fire Hose Reducers.

Size ..... inches	2½x¾	2½x1	2½x1¼	2½x1½	2½x2	3x2	3x2½
Price.....each	2.75	2.85	3.00	3.00	3.25	3.50	4.00

Siamese Couplings.

FIG. 1606.

TWO 2 1-2 MALE, ONE 2 1-2 FEMALE LOOSE COUPLING.

FIG. 1607.

ONE 2 1-2 MALE, TWO 2 1-2 FEMALE LOOSE COUPLING.

FIG. 1608.

TWO 2 1-2 MALE, ONE 4 FEMALE LOOSE COUPLING.

FIG. 1609

TWO 2 1-2 MALE, ONE 4 FEMALE LOOSE COUPLING.

Figure Number.....	1606	1607	1608	1609
Price ..... each	10.00	13.00	14.00	30.00

SIAMESE CONNECTIONS, FOR STAND PIPES.

FIG. 1610.

Size, Iron Pipe.....inches	3	4
Size, Both Nozzles.....inches	2½	2½
Price.....each	15.00	30.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

HOSE REELS.

SWINGING WALL OR STAND PIPE REEL.

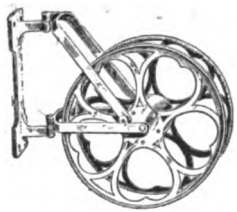

FIG. 1611.

WALL REEL.

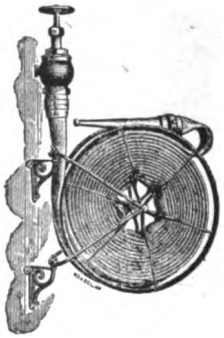

FIG. 1612.

Swinging Wall or Stand Pipe Reel.

Number	1	2	3	4	5	6
Size, Hose.....inches	1¼ or 1½	2	2½	1¼ or 1½	2	2½
Capacity, Unlined Linen Hose.....feet	175	150	150	250	250	275
Capacity, Rubber Lined Cotton Hose..feet	50	50	50	100	100	100
Price.....each	6.00	6.00	.50	7.50	8.00	8.50

Reels are constructed of metal, handsome in design and finished in enamel.

Wall Reels.

Number	0	00	000	2	3	4	5	6	7	8
Size, Hose.....inches	1¼ or 1½	2	2½	1¼ or 1½	2	2½	1¼ or 1½	2	2½	2½
Capacity, Unlined Linen Hose. ...feet	50	50	50	100	100	100	200	200	200	.....
Capacity, Rubber Lined Cotton Hose.....feet	.....	.....	.....	50	50	50	100	100	100	150
Price.....each	6.00	6.00	6.00	6.00	6.00	6.50	7.50	8.00	8.50	11.50

Pipe clamps, 4 inches and under, per pair net, .30.

Gold or silver bronze finish net, .50.

Nickel, brass or copper finish net, 3.00.

Furnished with wall brackets and finished in vermillion unless otherwise ordered.

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HOSE REELS AND RACKS.

WATERWAY REEL.

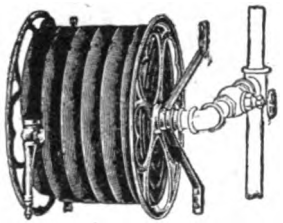

FIG. 1613.

SWINGING RACK.

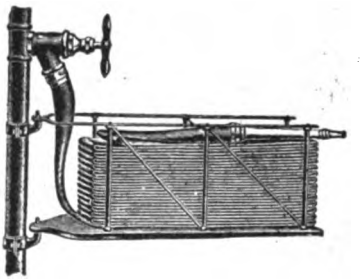

FIG. 1614.

Waterway Reels.

Size, Hose..... inches	1½	2	2½
Capacity..... feet	50	50	50
Price..... each	10.00	15.00	20.00

This Reel has a Rotary Valve and is connected direct to Stand Pipe Valve, so when Valve is open the water passes through the Reel and Hose and is ready for instant use, water can be thrown with a part or all of the Hose off the Reel.

Swinging Racks, for Unlined Linen Hose.

Number.....	9	10	11	12	13	14
Size, Hose..... inches	1½ or 2	2½	1½ or 2	2½	1½ or 2	2½
Capacity..... feet	50	50	100	100	150	150
Price..... each	5.00	5.00	6.00	6.00	7.00	7.00

Swinging Racks, for Rubber Lined Cotton Hose.

Number.....	13	14	15	16
Size Hose..... inches	1½ or 2	2½	1½ or 2	2½
Capacity..... feet	50	50	100	100
Price..... each	7.00	7.00	7.50	8.00

Nos. 15 and 16 will carry heavy hose of almost any make in 50 feet lengths. Racks are furnished with Clamps or Wall Plates as desired, without extra charge.

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HOSE RACKS AND CARTS.

SWINGING RACK

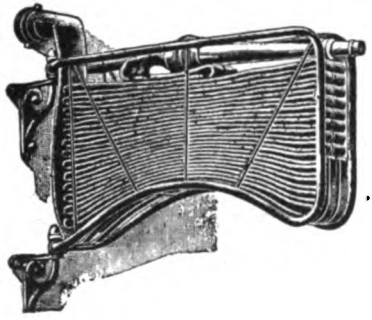

FIG 1615.

CART.

FIG. 1616.

Swinging Racks, for Unlined Linen Hose.

Number	A 0	A 00	A 1	A 2	A 3	A 4
Size Hose.....inches	1½ or 2	2½	1½ or 2	2½	1½ or 2	2½
Capacity.....feet	50	50	100	100	150	150
Price.....each	5.00	5.00	6.00	6.00	7.00	7.00

Swinging Racks, for Rubber Lined Cotton Hose.

Number	A 3	A 4	A 5	A 6
Size Hose.....inches	1½ or 2	2½	1½ or 2	2½
Capacity.....feet	50	50	100	100
Price.....each	7.00	7.00	7.50	8.00

Nickel, brass or copper finish, net extra, 3.00.

Bronzed, gold or aluminum, net extra, .50.

Pipe clamps, 4 inches and under, per pair net, .30.

Furnished with wall brackets and finished in vermillion unless otherwise ordered.

Nos. 5 and 6 will carry heavy hose of almost any make in 50 foot lengths.

Carts.

Number	101	102	103
Capacity 2½ inch Cotton Hose Rubber Lined..feet	300	600	1000
Capacity 2½ inch Rubber Fire Hose.....feet	150	300	500
Height of Wheels.....inches	42	48	52
Width Outside.....inches	38½	41	47
Weight.....pounds	130	180	200
Price .....each	35.00	45.00	55.00

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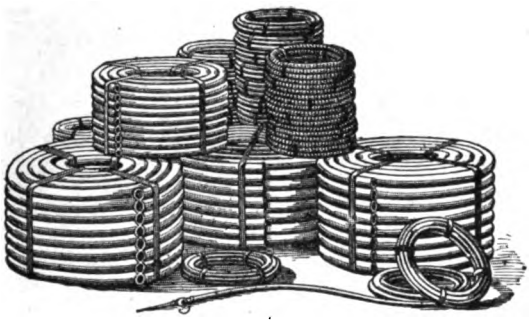

FIG. 1617.

Rubber Water Hose.

Size.....inches	½	¾	1	1¼	1½	1¾
Price, Two-ply.....per foot	.20	.25	.33	.42	.50	.58
Price, Three-ply.....per foot	.25	.30	.40	.50	.60	.70
Price, Four-ply.....per foot	.30	.37	.50	.62	.75	.87

Size.....inches	2	2¼	2½	2¾	3	4
Price, Two-ply.....per foot	.66	.75	.83	.92	.99	1.32
Price, Three-ply.....per foot	.80	.90	1.00	1.10	1.20	1.60
Price, Four-ply.....per foot	1.00	1.12	1.25	1.37	1.50	2.00

Five and six-ply Hose made to order at an advance of 25 and 50 per cent on Four-ply prices.

Intermediate sizes will be charged at the list price of the next larger size.

Our Brands of Rubber Garden Hose.

Kellar	½ inch 4 ply.	¾ inch 5 ply.	Prices on Application.
Ajax.	½ inch 3 and 4 ply	¾ inch 3 and 4 ply	
Vulcan	½ inch 4 ply.	¾ inch 5 ply.	

Steam, Air, Oil, Tanners, Brewers and Hydraulic Hose.

Size.....inches	½	¾	1	1¼	1½	1¾	2	2¼	2½	3
Price, Three-ply.....per foot	.43	.51	.67	.85	1.02	1.18	1.34	1.50	1.66	2.00
Price, Four-ply.....per foot	.51	.67	.83	1.04	1.25	1.45	1.66	1.87	2.08	2.80
Price, Five-ply.....per foot	.63	.83	1.03	1.30	1.56	1.81	2.07	2.33	2.60	3.50
Price, Six-ply.....per foot	.76	1.00	1.24	1.56	1.87	2.17	2.49	2.80	3.12	4.20

Steam Heat Hose in lengths of 22, 24, 36 and 48 inches same list as Steam Hose.

Air Brake Hose in 50 foot lengths or shorter as ordered; sizes 1 and 1¼ inch, Four-ply; same list as Steam Hose of corresponding sizes and ply.

For Marline Wound Hose, add 10 per cent net.

For Hose wound with round wire, add 15 per cent net.

For Hose wound with flat wire, add 20 per cent.

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HOSE.

ROUGH BORE SUCTION HOSE, ON ROUND SPIRAL SPRING WIRE.

FIG. 1618.

SMOOTH BORE SUCTION HOSE, ON FLAT SPIRAL SPRING WIRE.

FIG. 1619.

HARD RUBBER SUCTION HOSE.

FIG. 1620.

Rough and Smooth Bore Suction Hose, On Round Wire.

Size.....inches	⅜	1	1¼	1½	1¾	2
Price, Rough Bore, Brass Wire..per foot	.77	1.00	1.25	1.65	2.10	2.50
Price, Rough Bore, Galv. Steel Wire.....per foot	.70	.90	1.15	1.50	1.90	2.30
Price, Smooth Bore, Steel Wire, per foot	.80	1.05	1.30	1.70	2.15	2.60

Rough and Smooth Bore Suction Hose, On Flat Wire.

Size ..... inches	2½	3	3½	4	4½	5	5½	6
Price, Rough Bore, Galv. Steel Wire..per foot	3.10	4.00	4.90	5.80	6.70	7.60	8.50	9.50
Price, Smooth Bore, Steel Wire....per foot	3.50	4.50	5.50	6.50	7.50	8.50	9.50	10.50

Size ..... inches	6½	7	7½	8	9	10	12	.....
Price, Rough Bore, Galv. Steel Wire..per foot	10.50	12.00	13.50	15.00	17.50	20.00	25.00	.....
Price, Smooth Bore, Steel Wire.....per foot	12.00	13.50	15.00	16.50	19.50	22.50	27.50	.....

Agricultural and Hard Rubber Suction Hose.

Size ..... inches	¾	1	1¼	1½	1¾	2	2½	2½
Price.....per foot	.65	.75	.93	1.13	1.31	1.50	1.69	1.88

Acid and Sand Blast Hose.

Size (FOUR PLY).....inches	¾	1	1¼	1½	2	2¼	2½	3	3½	4
Price, ⅛ inch Lining.....per foot	.75	1.00	1.15	1.30	1.55	1.70	1.85	2.25	2.75	3.25
Price, $\frac{3}{16}$ inch Lining.....per foot	.90	1.15	1.35	1.55	1.85	2.10	2.30	2.75	3.25	3.75
Price, ¼ inch Lining.....per foot	1.10	1.35	1.55	1.80	2.25	2.50	2.75	3.25	3.75	4.25

Five and Six Ply Hose made at an advance of 25 per cent for each ply.

Pneumatic Tubing and Hose.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	2
Price, Four-ply..per foot	.35	.43	.51	.67	.83	1.04	1.25	1.66
Price, Five-ply..per foot	.43	.51	.63	.83	1.03	1.30	1.56	2.07
Price, Six-ply....per foot	.51	.63	.76	1.00	1.24	1.56	1.87	2.49

Divers', Gas and Fire Extinguisher Hose.

Size.....inches	½	⅝	¾	1
Price, Submarine or Divers' Hose, Five-ply..per foot	.50	.....	.....	.....
Price, Gas Hose, for Pintsch Gas, etc.....per foot	.....	1.00	.....	.....
Price, Chemical or Fire Extinguisher Hose, Four-ply.....per foot	.....	.....	.37	.50

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HOSE AND TUBING.

COTTON MILL HOSE.

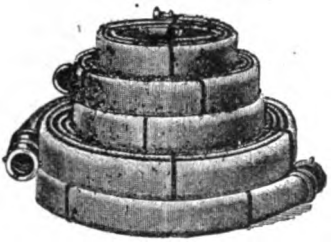

FIG. 1621.

UNLINED LINEN HOSE.

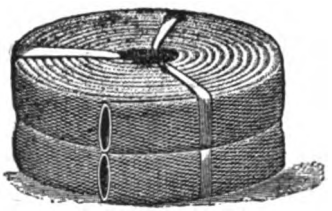

FIG. 1622.

Cotton Mill Hose, Rubber Lined.

Size.....inches	1	1¼	1½	2	2½	2½
Price.....per foot	.40	.45	.50	.60	.65	.70

Underwriters Cotton Hose, Rubber Lined.

Price, Underwriters, 2½ inch .....per foot	1.00

Standard Linen Hose, Unlined.

Size.....inches	1	1¼	1½	2	2½	2½	3
Price.....per foot	.15	.18	.20	.24	.26	.28	.40

Underwriters Linen Hose, Unlined.

Size.....inches	1	1¼	1½	2	2½	2½	3
Price.....per foot	.27	.30	.33	.42	.46	.50	.65

FIRE HOSE.

Cotton, Linen and Rubber Hose for Fire Departments and High Pressure Service. Prices and Samples on application.

Cotton Duck, Sewed Mining and Tank Hose, Unlined, No Cover.

Size.....inches	4	6	8	10	12
Price, Four-ounce Duck.....per foot	.20	.30	.40	.50	.60
Price, Six-ounce Duck.....per foot	.24	.34	.44	.54	.64
Price, Eight-ounce Duck.....per foot	.26	.36	.46	.56	.66
Price, Ten-ounce Duck.....per foot	.....	.....	.48	.60	.70
Price, Twelve-ounce Duck.....per foot	.....	.....	.....	.64	.74

RUBBER TUBING.

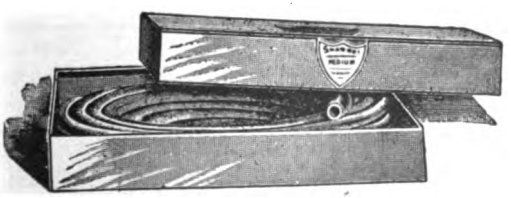

FIG. 1623

RUBBER HOSE WASHER.

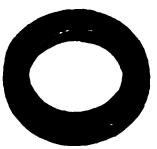

FIG. 1624.

Rubber Tubing, Plain, Corrugated and Cloth Insertion.

Size, Inside Diameter.....inches	⅛	3/16	¼	5/16	⅜	½	⅝	¾	1
Price, Plain or Corrugated...per foot	.08	.12	.16	.18	.20	.25	.30	.35	.45
Price Cloth Insertion.....per foot	.10	.14	.18	.20	.23	.28	.33	.38	.50

Rubber Hose Washers.

Price, ¾ inch.....per hundred	.75

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CORRUGATED RUBBER MATTING.

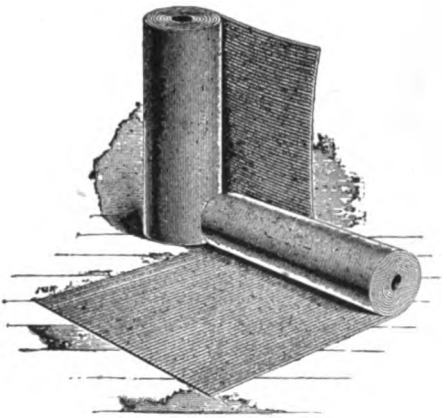

FIG. 1625.

Thickness .....inches	3/32	1/8	3/16	1/4	3/8	1/2
Price ....per square foot	.33	.40	.56	.73	1.03	1.30

Made either 36 or 42 inches wide; any length desired.

Rubber Diaphragms.

PUMP.

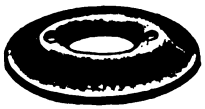

FIG. 1626.

LOW PRESSURE.

FIG. 1627.

HIGH PRESSURE.

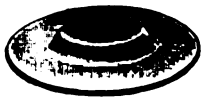

FIG. 1628.

Number.....	1	2	3	4	7
Diameter .....inches	6¾	9	11½	9	9½
Price, Low Pressure Diaphragms.....each	.....	.....	.....	.80	1.00
Price, High Pressure Diaphragms. .....each	.50	.80	1.50	.....	.....

Edison, Loud and Ajax Pump Diaphragms, 3.00 each.

RUBBER VALVE BALL.

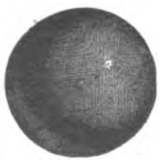

FIG. 1629.

Size.....inches	1	1⅛	1¼	1⅜	1½	1⅝	1¾	1⅞	2	2¼
Price.....per dozen	1.00	1.40	1.90	2.50	3.25	4.00	4.75	5.50	6.50	8.00

Size.....inches	2½	2¾	3	3¼	3½	3¾	4	4½	5	6
Price.....per dozen	10.50	13.00	15.50	19.50	23.50	29.25	35.00	54.50	70.00	115.00

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THE W. M. PATTISON SUPPLY CO. 589 CLEVELAND

SHEET PACKING.

FIG. 1630.

Cloth Insertion.

Thickness.....inches	1/16	1/32	1/16	3/32	1/8	3/16	1/4
Price, One-ply.....per pound	.70	.65	.60	.55	.....	.....	.....
Price, Two-ply.....per pound	.....	.....	.63	.58	.55	.....	.....
Price, Three ply.....per pound	.....	.....	.66	.61	.58	.55	.....
Price, Four-ply.....per pound	.....	.....	.....	.....	.61	.58	.....

There is one-ply of cloth to every 1/16 thickness. Each cloth, whether insertion or outside, to count as one-ply. Three cents per pound additional will be charged for each extra ply of cloth. All Cloth Insertion Packing is one yard wide and any length desired.

Special Brands.

Ajax, Red in color, made in rolls 1/32, 1/16, 3/32, 1/8, 3/16, and 1/4 thick.....price per pound	.80
Black Hawk. Adapted for very high pressure, will not harden under any degree of heat, made in rolls, 1/16 and 1/8 inch thick, 200 pounds each. Other sizes 100 pounds each.....price per pound	.80
Jenkins' 96. Made in rolls, 1/32, 1/16, 3/32, 1/8, 3/16, and 1/8 inch thick. Weight per square yard, 1/32, 2 3/4 pounds; 1/16, 5 1/2 lbs; 3/32, 8 1/4 lbs; 1/8, 11 lbs; 3/16, 16 1/2 lbs; 1/4 22 1/2 lbs.....price per pound	.80
Usudurion. Self Vulcanizing, will not burn or char. Made in rolls 1/32, 1/16, 1/8, 3/16 and 1/4 inch..price per pound	.80
Wire Insertion......price per pound	.80
Kearsarge. For high pressure, made from Asbestos Yarn and strands of fine brass wire firmly woven together, made in sheets 40 inches wide, 1, 2 and 3 ply.....price per pound	1.00
Rainbow. Made in rolls 1/32, 1/16, 3/32, 1/8, 1/16, and 1/4 inch thick, 200 pounds each.....price per pound	1.00
Pure Gum. Made in rolls from 1/32 to 2 inches thick.....price per pound	1.40

Vulcabeston.

Size.....inches	35x35	35x35	35x35	35x35	35x35
Thickness.....inches	1/32	1/16	1/8	3/16	1/4
Price.....per sheet	2.40	3.00	4.60	7.00	8.00

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PACKING.

ROUND DUCK WITH AND WITHOUT RUBBER CORE.

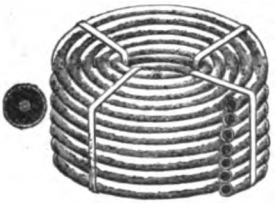

FIG. 1631.

SQUARE DUCK.

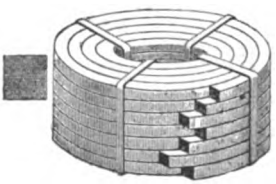

FIG. 1632.

SQUARE, RUBBER BACK.

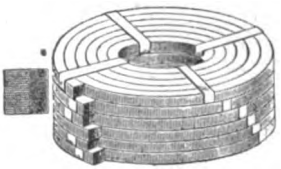

FIG 1633

Price, Round or Square, Duck Packing	per pound	.85
Price, Square Rubber Back Packing	per pound	1.00

ROUND GUM CORE PACKING.

FIG. 1634.

FLAT GUM CORE PACKING.

FIG. 1635.

SQUARE HYDRAULIC OR PUMP PISTON PACKING.

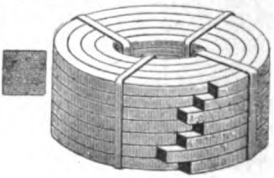

FIG. 1636.

Price, Round Gum Core Packing	per pound	.40
Price, Flat Gum Core Packing	per pound	.60
Price, Square Hydraulic or Pump Packing	per pound	1.00

BLACK HAWK HYDRAULIC RED CORE.

FIG. 1637.

PURE GUM, ROUND AND SQUARE

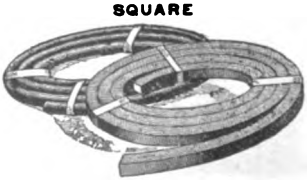

FIG. 1638.

Price, Black Hawk Hydraulic Red Core Packing	per pound	1.25
Price, Pure Gum, Round and Square Packing	per pound	1.75

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PACKING.

REVERE, SQUARE SECTIONAL RING PACKING.

FIG. 1639.

REVERE, SQUARE ELASTIC RING PACKING.

FIG. 1640.

REVERE, SQUARE SPIRAL PACKING.

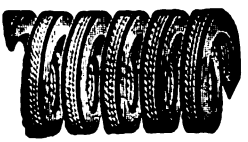

FIG. 1641.

Revere.

Price, Revere Sectional, Elastic and Spiral Packing	per pound	1.20

Garlock.

Price, Garlock Sectional, Elastic and Spiral Packing	per pound	1.20

SAMSON PISTON PACKING.

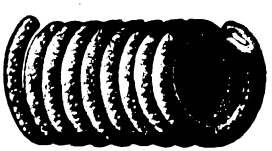

FIG. 1642.

GIANT METALLIC PISTON PACKING.

FIG. 1643.

KNOWLTON SPIRAL PACKING

FIG. 1644.

Price, Samson Piston Packing; Red Rubber Core wrapped in special duck and plumbago	per pound	.80
Price, Giant Metallic Piston Packing; A Combination of Metal, Rubber, Duck and plumbago cover, Metallic Core	per pound	1.50
Price, Knowlton Spiral and Ring Packing up to 1½ inch. Sizes ⅛ inch square in sixteenths	per pound	1.50

SEMI-METALLIC DIAGONAL EXPANSION PACKING.

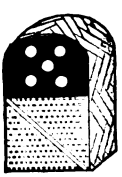

FIG 1645.

Price, Semi-Metallic Diagonal Expansion Packing	per pound	1.20

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THE W M PATTISON SUPPLY CO CLEVELAND

PACKING.

Asbestos and Rubber Wound Cloth Packings.

WITH OR WITHOUT WIRE INSERTION; FLAT, ROUND OR SQUARE.

CLASS A. CLASS C. CLASS K. CLASS L.

FIG. 1646.

FIG. 1647.

FIG 1648.

FIG. 1649.

Price, Asbestos and Rubber Wound Cloth Packings, from $\frac{3}{4}$ to 2 inch.....per pound	1.00

ASBESTO METALLIC PISTON PACKING.

FIG 1650

BLACK HAWK, HIGH PRESSURE PACKING. ROUND OR SQUARE.

FIG. 1651.

FIG. 1652.

VALCABESTON PISTON PACKING.

FIG. 1653.

Price, Asbesto Metallic Piston Packing; Rubber I core, braided with asbestos thread and outside cover of flax and wire.....per pound	1.50
Price, Black Hawk High Pressure Packing; wire inserted asbestos cloth, with rubber cushion at the back...per pound	1.50
Price, Vulcabeston Packing; braided from twisted strands of asbestos combined with rubber and vulcanized; $\frac{1}{8}$ to 2 inches, on reels from 10 to 50 pounds.....per pound	1.00
Price, Vulcabeston Packing; $\frac{1}{16}$ to $\frac{3}{32}$ inches, on spools from $\frac{1}{4}$, $\frac{1}{2}$ and 1 pounds.....per pound	1.25

BLACK HAWK ASBESTOS CORD, VALVE PACKING.

FIG. 1654

ASBESTOS WICK.

FIG. 1655.

ASBESTOS ROPE.

FIG. 1656.

ASBESTOS MILL BOARD.

FIG 1657.

Price, Black Hawk Valve Packing; $\frac{1}{16}$ and $\frac{1}{8}$ inch in one pound boxes, $\frac{1}{4}$ and $\frac{3}{8}$ inch in two pound boxes...per pound	1.00
Price, Asbestos Wick; Standard and Special, $\frac{1}{4}$, $\frac{1}{2}$ and one pound balls or 5 and 10 pound spools....per pound	.45
Price, Asbestos Rope; Standard and Special, 10, 15, 25 and 50 pound reels.....per pound	.45

Asbestos Mill Board, Sheets 40x40 Inches.

Thickness..... inches	$\frac{1}{32}$	$\frac{3}{64}$	$\frac{1}{16}$	$\frac{3}{32}$	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$
Weight per Sheet, pounds	2 to 2½	3 to 3½	3¾ to 4¼	5½ to 6	7½ to 8	11½ to 12	13½ to 14½	23 to 25	27 to 30
Price, per pound	All Thicknesses, Case Lots.....07				All Thicknesses, Less than Case Lots.....10				

Mill Board furnished in hard, medium and soft grades, cases weigh about 250 pounds. Asbestos Fibre, 30, 40, 50 and 60 cents, per pound.

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PACKING.

HEMP AND JUTE PACKING.

FIG. 1658.

OAKUM.

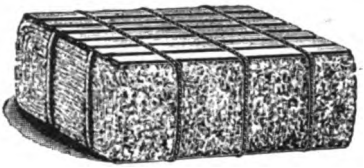

FIG. 1659.

Hemp Packing.

Grade	A	B	Tallowed
Price.....per pound			.15
Price, American.....per pound	.18	.16	
Price, Italian.....per pound	.25	.20	

Jute Packing.

Price, Plain.....per pound	.08
Price, Tarred.....per pound	.10

Oakum.

Price.....per bale (50 pounds)	5.00

KELLAR SQUARE FLAX PACKING.

STANDARD SQUARE FLAX PACKING.

FIG. 1660.

FIG. 1661.

CANDLE WICK.

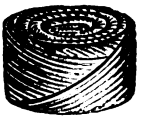

FIG. 1662.

Square Flax Packing.

Price, Standard Square Flax Packing.....per pound	.50
Price, Kellar Square Flax Packing.....per pound	1.00

Candle Wick.

	Standard	Ajax
Price, Balls ¼, ½ and one pound.....per pound	.30	.40

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GASKETS.

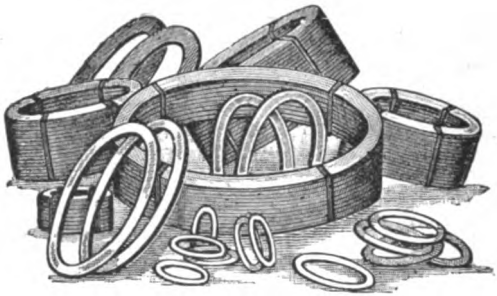

FIG. 1663.

Rubber Gaskets.

Price, $\frac{3}{32}$ inch and upward in thickness	per pound	1.00
Price, $\frac{1}{16}$ inch or less in thickness	per pound	1.25
Price, Pure Rubber	per pound	1.50
Price, Wire Insertion	per pound	2.00

In all sizes above $\frac{3}{32}$ inch there is one ply of cloth to every $\frac{1}{16}$ inch thickness. Each cloth, whether insertion or on outside, to count as one ply. Five cents per pound additional will be charged for each extra ply of cloth.

Handhole Gaskets, 3-16 Inch Thick.

Size.....inches	2x3½	2x4½	2½x3½	2½x4	3x4	3x4½	3x5	3½x4½	3½x5
Price.....each	.16	.16	.16	.18	.18	.18	.20	.20	.20

Size.....inches	3½x5½	4x5½	4x6	4½x6	4½x6½	5x8	6x8	7x9	8x10
Price.....each	.20	.25	.25	.30	.30	.50	.50	.75	.75

Manhole Gaskets, ¼ Inch Thick.

Size.....inches	9x14	9x15	9½x15	9½x15½	10x14	10x14½	10x15
Price.....each	1.00	1.00	1.00	1.10	1.10	1.10	1.10

Size.....inches	10x15½	11x14½	11x15	11x15½	11x16	12x15	12x16
Prize.....each	1.10	1.10	1.10	1.25	1.25	1.25	1.25

Lip and Flange Union Gaskets.

Size.....inches	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4	4½	5	6
Price, Lip Union Gaskets per hundr'd	.60	.65	.75	.80	1.10	1.20	1.35	2.70	.....	.....	.....	.....	.....	.....
Price, Flange Union Gaskets...each	.....	.....	.....	.10	.12	.15	.20	.25	.30	.35	.38	.40	.45	.50

Jenkins' Union Gaskets, per pound, 1.25.

Special Gaskets.

Price, Jenkins' 96 Standard Gaskets	per pound	1.00
Price, Black Hawk Gaskets	per pound	1.25
Price, Kearsarge Asbesto Metallic Gaskets	per pound	1.25
Price, Rainbow Gaskets $\frac{1}{16}$ to ¼ inch thick	per pound	1.10
Price, Rainbow Gaskets, $\frac{1}{16}$ to ¼ inch thick	per pound	1.30
Price, Rainbow Gaskets, $\frac{1}{32}$ inch thick	per pound	1.40
Price, Usudurian Gaskets	per pound	1.50
Price, Asbestos Mill Board Gaskets, regular shapes	per pound	.75
Price, Asbestos Mill Board Gaskets, irregular shapes	per pound	1.25

Gaskets for Water Tube Boilers. Prices on application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CORRUGATED COPPER GASKETS.

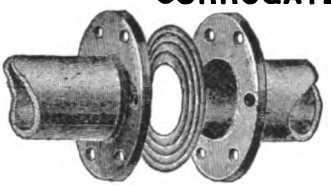

FIG. 1664.

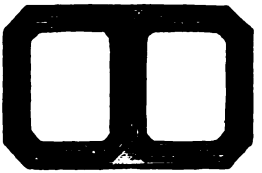

FIG. 1665.

Size, Inches.	Price.	Size, Inches.	Price.	Size, Inches.	Price.	Size, Inches.	Price.	Size, Inches.	Price.
1/8	.004	4 7/8	.37	13 1/4	2.86	23 1/4	8.49	33	17.11
1 9/16	.005	5	.39	13 3/4	2.97	23 1/2	8.67	33 1/4	17.37
1 5/16	.006	5 1/8	.41	14	3.08	23 3/4	8.86	33 1/2	17.63
1 1/16	.007	5 1/4	.43	14 1/4	3.19	24	9.05	33 3/4	17.89
1 3/16	.009	5 3/8	.45	14 1/2	3.30	24 1/4	9.24	34	18.16
1 1/16	.01	5 1/2	.48	14 3/4	3.42	24 1/2	9.43	34 1/4	18.43
1 1/16	.012	5 5/8	.50	15	3.53	24 3/4	9.62	34 1/2	18.70
1 1/16	.014	5 3/4	.52	15 1/4	3.65	25	9.82	34 3/4	18.97
1	.016	5 7/8	.54	15 1/2	3.77	25 1/4	10.01	35	19.24
1 1/8	.02	6	.57	15 3/4	3.90	25 1/2	10.21	35 1/4	19.52
1 1/4	.025	6 1/4	.61	16	4.02	25 3/4	10.42	35 1/2	19.80
1 3/8	.03	6 1/2	.66	16 1/4	4.15	26	10.62	35 3/4	20.08
1 1/16	.035	6 3/4	.72	16 1/2	4.28	26 1/4	10.82	36	20.36
1 1/16	.04	7	.77	16 3/4	4.41	26 1/2	11.03	36 1/4	20.64
1 1/16	.05	7 1/4	.83	17	4.54	26 3/4	11.24	36 1/2	20.93
1 7/8	.055	7 1/2	.88	17 1/4	4.67	27	11.45	36 3/4	21.21
2	.06	7 3/4	.91	17 1/2	4.81	27 1/4	11.66	37	21.50
2 1/8	.07	8	1.01	17 3/4	4.95	27 1/2	11.88	37 1/4	21.80
2 1/4	.08	8 1/4	1.07	18	5.09	27 3/4	12.10	37 1/2	22.09
2 3/8	.09	8 1/2	1.13	18 1/4	5.23	28	12.32	37 3/4	22.30
2 1/16	.10	8 3/4	1.20	18 1/2	5.38	28 1/4	12.54	38	22.68
2 1/16	.11	9	1.27	18 3/4	5.52	28 1/2	12.76	38 1/4	22.98
2 1/16	.12	9 1/4	1.34	19	5.67	28 3/4	12.98	38 1/2	23.28
2 7/8	.13	9 1/2	1.42	19 1/4	5.82	29	13.21	38 3/4	23.59
3	.14	9 3/4	1.49	19 1/2	5.97	29 1/4	13.44	39	23.89
3 1/8	.15	10	1.57	19 3/4	6.13	29 1/2	13.67	39 1/4	24.20
3 1/4	.17	10 1/4	1.65	20	6.28	29 3/4	13.90	39 1/2	24.51
3 3/8	.18	10 1/2	1.73	20 1/4	6.44	30	14.14	39 3/4	24.82
3 1/2	.19	10 3/4	1.82	20 1/2	6.60	30 1/4	14.37	40	25.13
3 5/8	.21	11	1.90	20 3/4	6.76	30 1/2	14.61	40 1/4	25.45
3 3/4	.22	11 1/4	1.99	21	6.93	30 3/4	14.85	40 1/2	25.77
3 7/8	.24	11 1/2	2.08	21 1/4	7.09	31	15.10	40 3/4	26.08
4	.25	11 3/4	2.17	21 1/2	7.26	31 1/4	15.34	41	26.41
4 1/8	.27	12	2.26	21 3/4	7.43	31 1/2	15.59	41 1/4	26.73
4 1/4	.28	12 1/4	2.36	22	7.60	31 3/4	15.83	41 1/2	27.05
4 3/8	.30	12 1/2	2.45	22 1/4	7.78	32	16.08	41 3/4	27.38
4 1/2	.32	12 3/4	2.55	22 1/2	7.95	32 1/4	16.34	.....	.....
4 5/8	.34	13	2.65	22 3/4	8.13	32 1/2	16.59	.....	.....
4 3/4	.35	13 1/4	2.76	23	8.31	32 3/4	16.85	.....	.....

Prices given are for solid gaskets; the difference between the price of outside and inside diameters will be the price of the required gasket. Thus, the list of an 8 inch gasket is 1.01; the list of a six inch is .57; therefore, the list on a 6 x 8 inch gasket would be .44. 1.01—.57 = .44.

Prices of elliptical and rectangular gaskets, 2 cents per square inch of actual surface.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND O.

GASKETS, PUMP VALVES, ETC.

AJAX TUBULAR GASKET

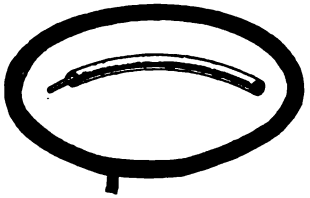

FIG. 1666.

Price, Ajax Tubular Gaskets	per pound	1.00

$\frac{1}{4}$ and $\frac{3}{8}$ inch for unions; $\frac{1}{2}$ inch for hand hole plates; $\frac{5}{8}$ and $\frac{3}{4}$ inch for manhole plates.

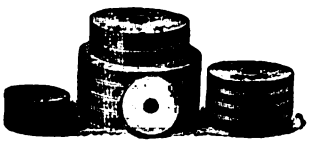

FIG. 1667.

Rubber Pump Valves.

Valves of any shape or size at prices according to stock required. Prices on application.

Stock Sizes, for Hot Water, Cold Water and Hot and Cold Water.

Diameter ..... inches	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6
Thickness ..... inches	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	1

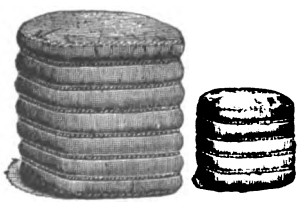

FIG. 1668.

Wool and Cotton Waste.

Number	7	12	A 21	A 37	S 71	87	94
Price, Colored Cotton Waste ..... per pound	.....	.....	.10	.12	.....	.....	.....
Price, White Cotton Waste ..... per pound	.....	.....	.....	.....	.14	.16	.20
Price, Wool Waste ..... per pound	.11	.18	.....	.....	.....	.....	.....

Curled Hair and Excelsior.

Price, Black Curled Hair; Bags of 25 pounds	per pound	.75
Price, White Curled Hair; Bags of 25 pounds	per pound	1.00
Price, Excelsior; Bales weigh about 100 pounds	per pound	.02

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 597

RAWHIDE SURFACE AND OAK TANNED LEATHER BELTING.

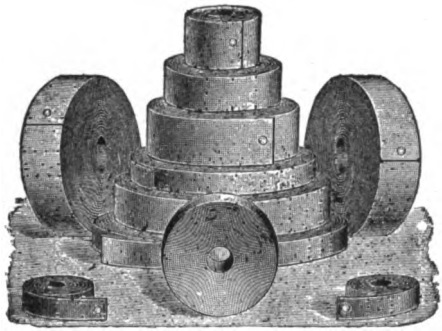

FIG. 1669.

Size, Inches.	Price, Per Foot.	Size, Inches.	Price, Per Foot.	Size, Inches.	Price, Per Foot.
¼	.10	6	1.32	25	5.50
⅜	.12	6½	1.43	26	5.72
½	.14	7	1.54	27	5.94
⅝	.16	8	1.76	28	6.16
1	.17	9	1.98	30	6.60
1¼	.23	10	2.20	32	7.04
1½	.29	11	2.42	34	7.48
1¾	.35	12	2.64	36	7.92
2	.41	13	2.86	38	8.36
2¼	.47	14	3.08	40	8.80
2½	.53	15	3.30	44	9.68
2¾	.59	16	3.52	48	10.56
3	.64	17	3.74	52	11.44
3¼	.70	18	3.96	56	12.32
3½	.76	19	4.18	60	13.20
3¾	.82	20	4.40	64	14.08
4	.87	21	4.62	68	14.96
4½	.98	22	4.84	72	15.84
5	1.09	23	5.06	.....	.....
5½	1.21	24	5.28	.....	.....

Double Belts double above list. Light Double Belts one and one-half above list. Dynamo Belts double above list.

ROUND BELTS.

Solid.		Twisted.			
Size, Inches.	Price, Per Foot.	Size, Inches.	Price, Per Foot.	Size, Inches.	Price, Per Foot.
⅛	.05	⅛	.06	½	.30
5/16	.07	5/16	.10	⅝	.36
¼	.10	¼	.14	¾	.46
5/16	.14	5/16	.18	⅞	.60
⅜	.18	⅜	.22	1	.72

White Rawhide Belting is guaranteed to resist gases, dampness and heat or cold; it will not soil the ceiling or convey dirt. Made short lap, sewed or riveted.

Superior Surface Tanned Belting is adapted for high speed and small pulleys; it is tanned on the surface only, retaining the strength and life of the hide; can be waterproofed if desired.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

RUBBER BELTING.

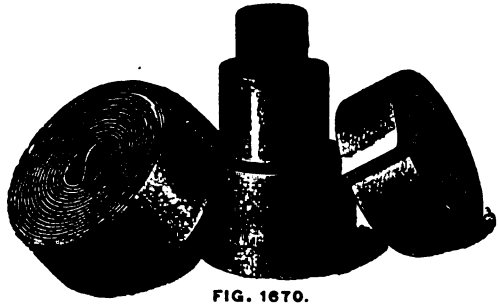

FIG. 1670.

Size, Inches, Per Foot.	Price, 2-Ply, Per Foot.	Price, 3-Ply, Per Foot.	Price, 4-Ply, Per Foot	Price, 5-Ply, Per Foot.	Price, 6-Ply, Per Foot.	Price, 7-Ply, Per Foot.	Price, 8-Ply, Per Foot.
1	.07	.09	.11	.....	.....	.....	.....
1¼	.09	.11	.13	.....	.....	.....	.....
1½	.11	.13	.15	.19	.....	.....	.....
1¾	.13	.15	.17	.21	.....	.....	.....
2	.15	.17	.21	.26	.31	.....	.....
2½	.18	.22	.26	.32	.39	.....	.....
3	.22	.26	.31	.38	.46	.....	.....
3½	.26	.30	.37	.46	.55	.....	.....
4	.30	.34	.42	.52	.63	.73	.....
4½	.33	.39	.47	.58	.70	.82	.....
5	.36	.43	.52	.65	.78	.91	.....
6	.43	.52	.62	.77	.93	1.08	1.24
7	.51	.60	.73	.91	1.09	1.27	1.46
8	.59	.70	.84	1.05	1.26	1.47	1.68
9	.67	.80	.95	1.18	1.42	1.66	1.90
10	.75	.90	1.07	1.33	1.60	1.87	2.14
11	.83	1.00	1.18	1.47	1.77	2.06	2.36
12	.91	1.08	1.30	1.62	1.95	2.27	2.60
13	1.00	1.18	1.42	1.77	2.13	2.48	2.84
14	1.08	1.28	1.54	1.92	2.31	2.69	3.08
15	1.16	1.38	1.66	2.07	2.49	2.90	3.32
16	1.25	1.50	1.78	2.22	2.67	3.11	3.56
18	1.41	1.70	2.02	2.52	3.03	3.53	4.04
20	1.58	1.90	2.26	2.82	3.39	3.95	4.52
22	1.76	2.12	2.52	3.15	3.78	4.41	5.04
24	1.96	2.36	2.80	3.50	4.20	4.90	5.60
26	2.16	2 60	3.08	3.85	4.62	5.39	6.16
28	2.36	2.84	3.36	4.20	5.04	5.88	6.72
30	.....	.....	3.64	4.55	5.46	6.37	7.28
32	.....	.....	3.92	4.90	5.88	6.86	7.84
34	.....	.....	4.20	5.25	6.30	7.35	8.40
36	.....	.....	4.48	5.60	6.72	7.84	8.96
38	.....	.....	4.76	5.95	7.14	8.33	9.52
40	.....	.....	5.04	6.30	7.56	8.82	10.08
42	.....	.....	5.32	6.65	7.98	9.31	10.64
44	.....	.....	5.60	7.00	8.40	9.80	11.20
46	.....	.....	5.88	7.35	8.82	10.29	11.76

Endless Belts same list as above, except that three extra feet is charged for splice.

Giant Belting, Seamless and Stitched; Granite and Shawmut Belting, seamless not stitched.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 599

STITCHED CANVAS BELTING, PAINTED.

FIG. 1671

Size, Inches.	Price, Per Foot 4 Ply.	Price, Per Foot 5 Ply.	Price, Per Foot 6 Ply.	Price, Per Foot 8 Ply.	Price, Per Foot 10 Ply.
1	.10	.....	.....	.....	.....
1½	.15	.....	.....	.....	.....
2	.20	.25	.29	.....	.....
2½	.25	.31	.36	.....	.....
3	.30	.38	.44	.....	.....
3½	.35	.44	.51	.....	.....
4	.40	.50	.58	.76	.....
4½	.45	.56	.65	.85	.....
5	.50	.63	.73	.95	.....
6	.60	.75	.87	1.14	.....
7	.70	.88	1.02	1.33	.....
8	.80	1.00	1.16	1.52	.....
9	.90	1.13	1.31	1.71	.....
10	1.00	1.25	1.45	1.90	.....
11	1.10	1.38	1.60	2.09	.....
12	1.20	1.50	1.74	2.28	2.82
13	1.37	1.71	1.99	2.60	3.22
14	1.47	1.84	2.13	2.79	3.45
15	1.58	1.98	2.29	3.00	3.71
16	1.68	2.10	2.44	3.19	3.95
18	1.89	2.36	2.74	3.59	4.44
20	2.10	2.63	3.05	3.99	4.94
22	2.31	2.89	3.35	4.39	5.43
24	2.52	3.15	3.65	4.79	5.92
26	.....	.....	4.15	5.43	6.72
28	.....	.....	4.47	5.85	7.24
30	.....	.....	4.79	6.27	7.76
32	.....	.....	5.10	6.69	8.27
34	.....	.....	5.42	7.11	8.79
36	.....	.....	5.74	7.52	9.31
38	.....	.....	.....	7.94	9.82
40	.....	.....	.....	8.36	10.34
42	.....	.....	.....	9.58	11.84
44	.....	.....	.....	10.03	12.41
46	.....	.....	.....	10.49	12.97
48	.....	.....	.....	10.94	13.54

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RUBBER BELTING.

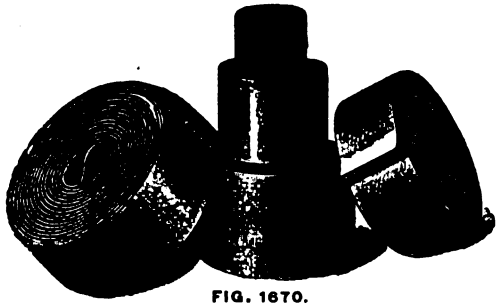

FIG. 1670.

Size, Inches, Per Foot.	Price, 2-Ply, Per Foot.	Price, 3-Ply, Per Foot.	Price, 4-Ply, Per Foot	Price, 5-Ply, Per Foot.	Price, 6-Ply, Per Foot.	Price, 7-Ply, Per Foot.	Price, 8-Ply, Per Foot.
1	.07	.09	.11	.....	.....	.....	.....
1¼	.09	.11	.13	.....	.....	.....	.....
1½	.11	.13	.15	.19	.....	.....	.....
1¾	.13	.15	.17	.21	.....	.....	.....
2	.15	.17	.21	.26	.31	.....	.....
2½	.18	.22	.26	.32	.39	.....	.....
3	.22	.26	.31	.38	.46	.....	.....
3½	.26	.30	.37	.46	.55	.....	.....
4	.30	.34	.42	.52	.63	.73	.....
4½	.33	.39	.47	.58	.70	.82	.....
5	.36	.43	.52	.65	.78	.91	.....
6	.43	.52	.62	.77	.93	1.08	1.24
7	.51	.60	.73	.91	1.09	1.27	1.46
8	.59	.70	.84	1.05	1.26	1.47	1.68
9	.67	.80	.95	1.18	1.42	1.66	1.90
10	.75	.90	1.07	1.33	1.60	1.87	2.14
11	.83	1.00	1.18	1.47	1.77	2.06	2.36
12	.91	1.08	1.30	1.62	1.95	2.27	2.60
13	1.00	1.18	1.42	1.77	2.13	2.48	2.84
14	1.08	1.28	1.54	1.92	2.31	2.69	3.08
15	1.16	1.38	1.66	2.07	2.49	2.90	3.32
16	1.25	1.50	1.78	2.22	2.67	3.11	3.56
18	1.41	1.70	2.02	2.52	3.03	3.53	4.04
20	1.58	1.90	2.26	2.82	3.39	3.95	4.52
22	1.76	2.12	2.52	3.15	3.78	4.41	5.04
24	1.96	2.36	2.80	3.50	4.20	4.90	5.60
26	2.16	2 60	3.08	3.85	4.62	5.39	6.16
28	2.36	2.84	3.36	4.20	5.04	5.88	6.72
30	.....	.....	3.64	4.55	5.46	6.37	7.28
32	.....	.....	3.92	4.90	5.88	6.86	7.84
34	.....	.....	4.20	5.25	6.30	7.35	8.40
36	.....	.....	4.48	5.60	6.72	7.84	8.96
38	.....	.....	4.76	5.95	7.14	8.33	9.52
40	.....	.....	5.04	6.30	7.56	8.82	10.08
42	.....	.....	5.32	6.65	7.98	9.31	10.64
44	.....	.....	5.60	7.00	8.40	9.80	11.20
46	.....	.....	5.88	7.35	8.82	10.29	11.76

Endless Belts same list as above, except that three extra feet is charged for splice.

Giant Belting, Seamless and Stitched; Granite and Shawmut Belting, seamless not stitched.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STITCHED CANVAS BELTING, PAINTED.

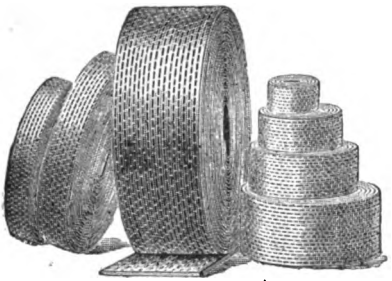

FIG. 1671.

Size, Inches.	Price, 4-Ply, Per Foot.	Price, 6-Ply, Per Foot.	Price, 8-Ply, Per Foot.	Price, 10-Ply, Per Foot.
1½	.14	.....	.....	.....
1¾	.16	.....	.....	.....
2	.18	.....	.....	.....
2½	.23	.....	.....	.....
3	.27	.36	.....	.....
3½	.32	.42	.....	.....
4	.36	.48	.....	.....
4½	.41	.54	.....	.....
5	.45	.60	.....	.....
6	.54	.72	.90	.....
7	.63	.84	1.05	.....
8	.72	.96	1.20	.....
9	.81	1.08	1.35	.....
10	.90	1.20	1.50	.....
12	1.08	1.44	1.80	2.40
14	1.26	1.68	2.10	2.80
16	1.44	1.92	2.40	3.20
18	.....	2.16	2.70	3.60
20	.....	2.40	3.00	4.00
22	.....	2.64	3.30	4.40
24	.....	2.88	3.60	4.80
26	.....	.....	3.90	5.20
28	.....	.....	4.20	5.60
30	.....	.....	4.50	8.00
32	.....	.....	4.80	6.40
34	.....	.....	5.10	6.80
36	.....	.....	5.40	7.20
38	.....	.....	5.70	7.60
40	.....	.....	6.00	8.00
42	.....	.....	6.30	8.40
44	.....	.....	6.60	8.80
46	.....	.....	6.90	9.20
48	.....	.....	7.20	9.60
54	.....	.....	.....	10.80
60	.....	.....	.....	12.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

PLAIN SOLID COTTON BELTING.

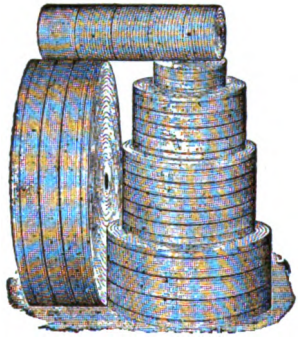

FIG. 1672.

Size, Inches.	Price, 2-Ply, Per Foot.	Price, 3-Ply, Per Foot,	Price, 4-Ply, Per Foot.	Price, 5-Ply, Per Foot.	Price, 6-Ply, Per Foot.
1	.04	.....	.....	.....	.....
1½	.05	.06	.....	.....	.....
2	.06	.08	.12	.20	.22
2½	.06½	.10	.14	.22	.24
3	.07	.12	.16	.26	.28
3½	.08	.14	.18	.30	.32
4	.09	.15	.21	.34	.36
4½	.....	.17	.24	.36	.39
5	.13	.19	.26	.38	.41
5½	.....	.21	.28	.40	.44
6	.17	.22	.30	.42	.46
7	.19	.27	.34	.45	.51
8	.21	.31	.38	.50	.57
9	.23	.35	.44	.56	.66
10	.26	.39	.50	.63	.75
12	.33	.48	.60	.75	.90
14	.41	.60	.75	.94	1.12
15	.....	.....	.83	1.03	1.23
16	.49	.72	.90	1.12	1.35
18	.57	.82	1.00	1.28	1.50
20	.61	.90	1.15	1.44	1.72
22	.65	1.00	1.35	1.62	1.94
24	.69	1.10	1.55	1.80	2.16

Any intermediate width made to order. 8-ply also made to order, 2 and 3-ply as wide as 40 inches. We shall be pleased to quote prices on application.

To find the length of a Belt: Add together the diameter of the two pulleys, divide the result by two, multiply the quotient obtained by 3 and one-seventh, add this product to twice the distance between the center of shafts. The results thus obtaiued will be the length of belt required in feet and inches.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

BELT LACINGS, ETC.

LACE LEATHER.

FIG. 1673.

CUT LACING.

FIG. 1674.

Lace Leather.

Price, Tanned.....per square foot	.25
Price, Rawhide.....per square foot	.30

Cut Lacing.

Width.....inches	¼	5/16	⅜	7/16	½	⅝	¾	1
Price, Tanned or Rawhide.....per 100 feet	1.00	1.25	1.50	1.75	2.00	2.75	3.25	4.50

METALLIC BELT LACING.

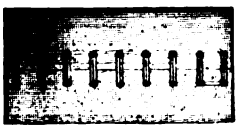

FIG. 1675.

COPPER RIVETS AND BURRS

FIG. 1676.

FIG. 1677.

Metallic Belt Lacing.

Number	0	1	2	3
For Belts.....inches	2 and Under	2½ to 6	6 to 20	20 to 40
Price.....per 100 feet	2.00	2.00	2.00	2.00

Copper Rivets and Burrs.

Number	3 to 7	8	9	10	11	12	13	14	15
Price, In 1 or 4 pound boxes...per pound	.49	.50	.52	.54	.56	.58	.60	.65	.70
Price, In ½ or ¾ pound boxes...per pound	.52	.53	.55	.57	.59	.61	.63	.68	.73

POINTED BELT HOOKS.

FIG. 1678.

BELT STUDS.

FIG. 1679.

Pointed Belt Hooks.

Number	16	15	14	13	12	11	10	9
Price.....per thousand	2.00	2.00	2.40	2.60	2.80	3.00	3.50	4.00
Number	8	7	6	5	4	3	2	1
Price.....per thousand	5.00	6.00	8.50	11.00	14.00	16.00	20.00	30.00
Size.....inches					2½	3	3½	4
Price.....per thousand					50.00	60.00	70.00	80.00

Belt Studs.

Number	6	5	4	3	2	1	0	00
Price.....per hundred	.60	.70	.80	.90	1.25	1.65	2.00	2.50

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BELT COUPLINGS AND HOOKS.

BELT COUPLING.

FIG. 1680.

KENEHAN BELT HOOKS.

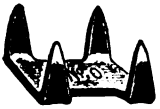

FIG. 1681.

FIG. 1682.

Belt Couplings.

Size, Outside Diameter.....inches	$\frac{1}{8}$	$\frac{5}{32}$	$\frac{3}{16}$	$\frac{7}{32}$	$\frac{1}{4}$	$\frac{9}{32}$	$\frac{5}{16}$	$\frac{11}{32}$	$\frac{3}{8}$	$\frac{7}{16}$
Price, Belt Couplings..per dozen	3.00	3.00	2.50	2.50	2.00	2.50	2.50	3.00	3.00	3.50

Size, Outside Diamnter.....inches	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	.....
Price, Belt Couplings..per dozen	4.00	5.00	6.00	7.50	9.00	13.00	18.00	22.00	26.00	.....

Kenehan Belt Hooks.

Number	0	1	2	3	4	5	6	7	8	9	$9\frac{1}{2}$	10	12	14
Packed in Boxes of..	100	100	100	100	100	50	50	50	50	50	50	50	25	25
Price per hundred....	.80	.90	1.20	1.80	2.30	2.70	3.00	3.90	4.50	4.00	5.50	7.00	8.50	10.00

THACHER BELT HOOKS.

FOR SINGLE LEATHER.

FIG. 1683.

FOR DOUBLE LEATHER AND 3 AND 4 PLY RUBBER.

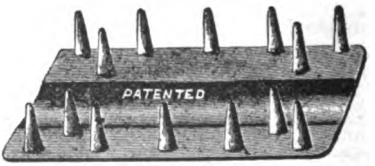

FIG. 1684.

Thacher Belt Hooks.

For Belts.....	Single Leather							Extra Wide for Old Single Leather				
Number.	1	2	3	4	5	6	7	31	32	33	34	35
For Belts...in	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Price per 100.	1.50	2.00	2.50	3.00	3.50	4.50	5.50	3.50	4.50	5.50	6.50	7.50

For Belts.....	Double Leather or 3 and 4 Ply Rubber.							5 and 6 Ply Rubber				
Number.	8	9	10	11	12	.....	.....	13	14	014	15	015
For Belts..in.	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	.....	.....	2	3	3	4	4
No. of Teeth..	.....	.....	.....	.....	.....	.....	.....	.....	14	18	18	26
Price per 100.	5.00	9.50	7.50	8.50	9.50	.....	.....	9.00	10.00	10.00	12.00	12.00

For Belts.....	Extra Wide or Old Belts				4 Ply or Old Rubber			Extra Large and Heavy.				
Number.	16	17	21	22	18	19	20	23	.....	.....	.....	.....
For Belts..in.	3	4	4	2, $2\frac{1}{2}$ or 3	2	3	4	.....	.....	.....	.....	.....
No. of Teeth..	.....	22	18	.....	.....	.....	.....	.....	.....	.....	.....	.....
Price per 100.	13.00	16.00	16.50	12.00	8.00	10.00	12.00	24.00	.....	.....	.....	.....

Numbers one to seven and thirty-one to thirty-five packed 100 in a box.
Numbers eight to twenty-three packed 50 in a box.

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THE W. M. PATTISON SUPPLY CO. 603 CLEVELAND

BELT HOOKS AND COUPLERS.

CHASE BELT COUPLER.

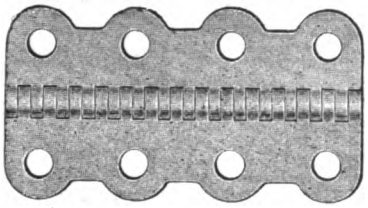

FIG. 1685.

ACME BELT HOOK.

FIG 1686.

Chase Belt Couplers.

For Belts.....	Doing Light Work					Single Leather, 4-ply Canvas and Rubber				
Number.....	302	304	306	308	388	506	566	508	510	514
For Belts.....inches	1	1½	2	2½	3	1½	2	2½	3	4
Price..... .....per gross	2.88	3.60	5.04	5.76	6.48	5.04	5.76	6.48	7.92	10.08

For Belts.....	Double Leather, Medium and Heavy Weight Canvas and Rubber				
Number	706	766	710	714	718
For Belts.....inches	1½	2	2½	3	4
Price.....per gross	5.76	7.20	8.64	11.52	14.40

Extra Rawhide Pins		
Size.....inches	$\frac{5}{32}$	$\frac{3}{16}$
Price, 302-514 per foot	.03	.....
Price, 706-718 per foot	.....	.04

Acme Belt Hooks.

For Belts.....	Single Leather									
Number.....	161	162	163	164	165	166	167	168	169	170
For Belt.....inches	½ and ¾	1	1¼	1½	1¾	2	2¼	2½	2¾	3
Price.....per hundred	1.00	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.50	4.00

For Belts.....	Extra Heavy Single Leather and 3-ply Rubber.									
Number.....	192	193	194	195	196	197	198	.....	.....	.....
For Belts.....inches	1½	2	2½	2½	3	3½	4	.....	.....	.....
Price.....per hundred	3.25	3.50	4.00	4.50	5.50	6.50	7.00	.....	.....	.....

For Belts	Double Leather									
Number	202	203	204	205	206	207	208	.....	.....	.....
For Belts.....inches	1½	2	2½	2½	3	3½	4	.....	.....	.....
Price.....per hundred	3.25	3.50	4.00	4.50	5.50	6.50	7.00	.....	....	.....

For Belts.....	Double Leather, Wide Backs					4-ply Rubber or Canvas				
Number	209	210	211	212	.....	213	214	215	216	.....
For Belts.....inches	2	2½	3	4	.....	2	2½	3	4	.....
Price.....per hundred	5.00	6.50	7.50	9.50	.....	5.00	6.50	7.50	9.50	.....

For Belts.....	4-ply Rubber or Canvas, Extra Wide Backs					5 & 6-ply Rubber or Canvas, Extra Wide Backs				
Number.....	217	218	219	.....	.....	221	222	223	.....	.....
For Belts.....inches	2½	3	4	.....	.....	2½	3	4	.....	.....
Price.....per hundred	9.00	10.00	12.00	.....	.....	9.00	10.00	12.00	.....	.....

Numbers 161 to 195 and 202 to 205, packed 100 in a box.
Numbers 196 to 198 and 206 to 223 packed 50 in a box.

BEVELED HEAD TINNED RIVETS.

FIG. 1687.

Length Under Head.....inches	$\frac{6}{16}$, $\frac{7}{16}$, $\frac{8}{16}$	$\frac{9}{16}$, $\frac{10}{16}$	$\frac{11}{16}$, $\frac{12}{16}$
Price Bevel Head Rivets.....per gross	.60	.68	.75

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BELT TOOLS.

Belt Punches.

ROUND PUNCH.

SOCKET PUNCH.

FIG. 1688. **Round and Oval Punches.** FIG. 1689.

Number	00, 0	1,2,3,4,5	6, 7, 8, 9	10, 11, 12	13, 14, 15, 16
Price, Round..per dozen	4.00	2.00	2.25	2.50	6.00
Price, Oval.....per dozen	.....	4.00	4.50	5.00	12.00

Socket Punches.

Size ..... inches	$\frac{7}{16}$–$\frac{1}{2}$	$\frac{9}{16}$–$\frac{5}{8}$	$\frac{11}{16}$–$\frac{3}{4}$	$\frac{13}{16}$–$\frac{7}{8}$	$\frac{15}{16}$–1	1$\frac{1}{8}$–1$\frac{1}{4}$	1$\frac{3}{8}$–1$\frac{1}{2}$	1$\frac{5}{8}$	1$\frac{3}{4}$
Price....per dozen	10.00	11.00	12.00	13.00	14.00	25.00	32.00	33.00	42.00

Size ..... inches	1$\frac{7}{8}$	2	2$\frac{1}{8}$	2$\frac{1}{4}$	2$\frac{3}{8}$	2$\frac{1}{2}$	2$\frac{3}{4}$	3	.....
Price....per dozen	45.00	48.00	51.00	57.00	63.00	72.00	90.00	108.00	.....

BELT PUNCH.

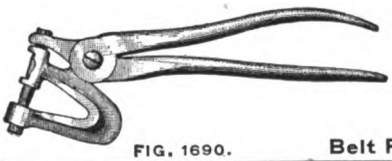

FIG. 1690.

SPRING PUNCH.

FIG. 1691.

Belt Punches.

Price, Belt Punches.....each	8.50

Spring Punches.

	Plain Tubes.	Screw Tubes.
Price, Spring Punches.....per dozen	6.00	8.00
Price, Extra Tubes.....per dozen	2.50	4.00

REVOLVING SPRING PUNCH.

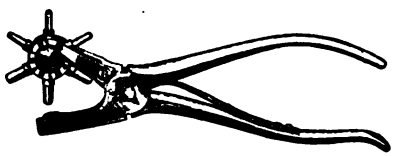

FIG. 1692.

COMBINATION BELT PUNCH PLIERS

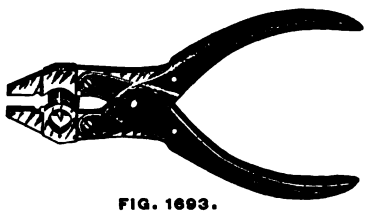

FIG. 1693.

Revolving Spring Punches.

Number of Tubes	4	6
Price, Revolving Punches.....per dozen	15.00	17.50
Price, Extra Tubes.....per dozen	2.50	

Combination Belt Punch Pliers.

Size..... inches	5	6
Price..... per dozen	12.00	14.00

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BELT TOOLS.

LOTHROPS' BELT AWL.

FIG 1694.

BELT REAMER.

FIG. 1695.

Belt Awls and Reamers.

Price, Oval Belt Awls	per dozen	3.50
Price, Round Belt Awls	per dozen	3.60
Price, Belt Reamers	per dozen	3.60
Price, Lothrop's Belt Awls	per dozen	6.00

AWL AND PLIERS COMBINED, FOR USE WITH BELT STUDS.

FIG. 1696.

BELT KNIFE.

FIG. 1697.

Awl and Pliers Combined and Belt Knives.

Price, Awl and Pliers Combined	each	.40
Price, Belt Knives	per dozen	3.00

BELT GROOVER.

FIG. 1698.

RIVET SET.

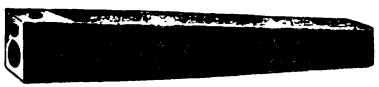

FIG. 1699.

Belt Groovers.

Price, Belt Groovers	per dozen	7.20

Rivet Sets.

Number	00	0	1	2	3	4	5	6	7	8
Size, Hole.....inches	$\frac{5}{16}$	$\frac{9}{32}$	$\frac{17}{64}$	3 Ga	9 Ga	15 Ga	21 Ga	27 Ga	33 Ga	39 Ga
For Iron Rivets..ounces	14	10–12	8	6	4–5	2½–3	2	1½	1¼	12
For Copper Rivets.....number	.....	5	6	7	8	9	10–11	12	13	14
Price .....per dozen	9.00	9.00	7.50	7.50	6.00	6.00	4.50	4.50	3.75	3.75

RIVET HOLDER.

FIG. 1700.

RIVET EXTRACTOR AND CUTTING NIPPERS.

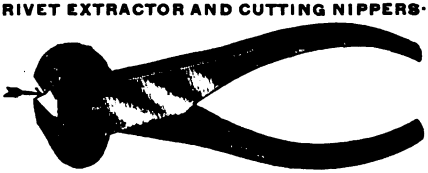

FIG. 1701.

Rivet Holders and Extractors.

Price, Rivet Holders	each	.05
Price, Rivet Extractors, Plain Jaws	each	1.00
Price, Rivet Extractors, Graduated Jaws	each	1.50

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BELT TOOLS.

LACE LEATHER CUTTER.

FIG. 1702.

RUBBER AND LEATHER CUTTER, FOR USE WITH BELT STUDS.

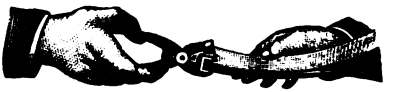

FIG. 1703.

Lace Leather Cutters.

Price, Cuts $\frac{3}{16}$ to $\frac{3}{4}$ inches wide) ..... per dozen		6.00

Rubber and Leather Cutters.

Price, Cutters for leather belts ..... each		.90
Price, Cutters for rubber belts ..... each		1.25

ADJUSTABLE BELT PLANE.

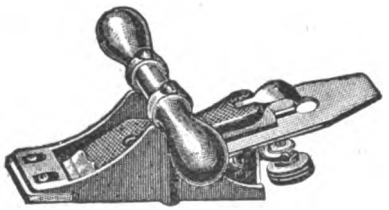

FIG 1704.

WASHER CUTTER.

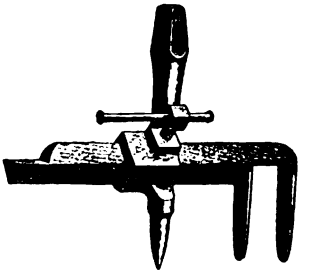

FIG. 1705.

Adjustable Belt Planes.

Price, Adjustable Belt Plane, $2\frac{3}{8}$ inch cutter ..... each		3.00

Washer Cutters.

Largest Size Washer will cut .... inches	6	8
Price ..... per dozen	11.00	14.00

WESTON BELT CLAMP.

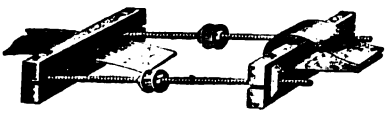

FIG. 1706.

GARDNER BELT CLAMP.

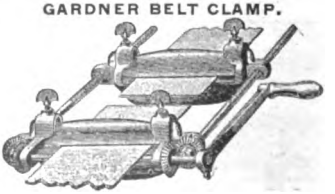

FIG. 1707.

Belt Clamps.

Width of Belt..inches	8	10	12	14	16	18	20	24	26	30	36
Price, Weston Belt Clamp...each	9.25	10.00	11.50	12.50	13.25	14.00	14.75	16.00	17.25	19.00	24.00
Price, Gardner Belt Clamp...each	14.00	.....	18.00	.....	22.00	.....	26.00	30.00	.....	.....	44.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 607

BELT DRESSINGS, CEMENT, ETC.

STEPHENSON BELT DRESSING.

FIG. 1708.

DIXON'S TRACTION BELT DRESSING

FIG. 1709.

STAR BELT DRESSING.

FIG 1710.

Stephenson Bar Belt Dressing.

Price, One pound bars.....per bar	.40

Dixon's Traction Belt Dressing.

Packages.....	10 lb. Pails	25 lb. Pails	50 lb. Pails	100 lb. Kegs	Bbls. about 375 lbs.
Price.....per pound	.30	.25	.22	.20	.18

Star Belt Dressing.

Price, Two pound cakes.....per pound	.30

GREEN SEAL BELT DRESSING.

FIG. 1711.

BELT CEMENT.

FIG. 1712.

Green Seal Belt Dressing.

Price, Five, Ten and Twenty-five pound cans.....per pound	.35

Belt Cement.

Price, One, Two and Five pound cakes.....per pound	.75

Dixon's Graphite Rope, Cable, Chain, Gear and Loose Fitting Journal Grease.

Packages.....	10 lb. Firkins	25 lb. Firkins	50 lb. Kegs	100 lb. Kegs	Bbls. of 400 lbs
Price.....per pound	.15	.14	.13	.12	.10

The above grease is furnished water-proof when so ordered.

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GRAPHITE, OILS, ETC.

FIG. 1713.

FIG. 1714.

FIG. 1715.

Pure Flake Graphite, Nos. 632 to 634.

Packages	1 lb. Cans	5 lb. Cans	10 lb. Cans
Price ..... each	.20	.85	1.60

Special Graphite, for Cylinders of Gas Engines, Etc., No. 635.

Packages	1 lb. Cans	5 lb. Cans	25 lb. Bag
Price ..... each	.40	1.50	6.25

Graphite Lubricating Compound, for Enclosed Gears of Automobiles, No. 688.

Packages	10 lb. Cans	25 lb. Cans	50 lb. Kegs
Price ..... each	2.00	4.75	9.00

Graphite Cup Grease.

Packages	10 lb. Packages	25 lb. Packages	50 lb. Packages
Price ..... each	1.70	4.00	7.50

Prepared Graphite for Motor Vehicles, No. 687.

Packages	5 lb. Cans	10 lb. Cans	25 lb. Firkins
Price ..... each	1.00	2.00	4.75

Grease and Tallow ..... Prices on Application

Oils, Etc

Boiler Oil.
Car Oil.
Coal Oil.
Cylinder Oil.
Engine Oil.
Head Light Oil.
Lard Oil.
Gasoline.
Coal Tar.
North Carolina Pitch.
Prices on application.

Linseed Oil.
Miners' Oils.
Natural West Virginia Oil.
Screw Cutting Oil.
Sperm Oil.
Vegetable Castor Oil.
Turpentine.
Pine Tar.
Roofing Pitch.

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THE W. M. PATTISON SUPPLY CO. 609 CLEVELAND

CHALK AND CRAYONS.

CARPENTERS' CHALK.

FIG. 1716.

SCHOOL CRAYON.

FIG. 1717.

RAILROAD CRAYON.

FIG. 1718.

Carpenters' and Lump Chalk.

Color	White.	Red.	Blue.
Price.....per gross	.60	.70	.80

Price, White Lump Chalk.....per pound	.05

School Crayons.

Price, School Crayons, White.....per gross	.25

Railroad Crayons.

Size and Color	4 x 1 inches, White.	4 x 1 inches, Blue.
Price.....per gross	1.00	1.50

OIL CRAYON.

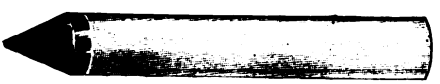

FIG. 1719.

SOAPSTONE CRAYON.

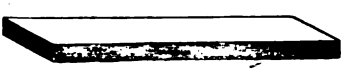

FIG. 1720.

Oil Crayons.

Color	Black.	Blue.	Red.	Green.	Yellow.
Price, 5x½,5x⅝ or 7x$\frac{5}{16}$ inch..per gross	6.00	6.00	6.50	6.50	6.50

Soapstone Crayons.

Size and Kind.	Metal Workers. 5 x ½ x ¼ inch.	Metal Workers, Round. 5 x ¼ inch.	Rolling Mill. 5 x 1¼ x $\frac{3}{16}$ inch.
Price, per gross	4.50	5.50	5.00

Red Keil.

Price, in Fingers.....per pound	.15

Soaps, Candles, Etc.

Fairbank's Gold Dust.
Red Seal Lye.
Candles.
German Mottled Soap.
Grand Pa's Wonder Soap.
Matches.

Prices on application.

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GLUE, ETC.

BORAX.

FIG. 1721.

WELDING COMPOUND.

FIG. 1722.

BEESWAX.

FIG. 1723.

Borax.

Price, Powdered and Lump	per pound	.20

Welding Compound.

Price, in 25 Pound Wooden Boxes	per pound	.25

Beeswax.

Price	per pound	.75

Rosin.

Price, Powdered	per pound	.10
Price, Lump, 280 Pounds to the Barrel	per barrel	5.00

Sulphur.

Price, Powdered	per pound	.05
Price, Lump	per pound	.05

FIG. 1724.

LIQUID GLUE.

FIG. 1725.

Liquid Glue.

Packages	1 Ounce.	2 Ounces.	½ Gill.	1 Gill.	½ Pint.	1 Pint.	1 Quart.	½ Gallon.	1 Gallon.
Price....per dozen	1.20	1.80	1.80	2.40	3.25	5.50	9.50	15.00	27.00

Bottles contain 1 and 2 ounces.

Miscellaneous Glue.

	"A" White.	Fine Ground.	French.	Emery.
Price.....per pound	.22	.22	.35	.25

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PAINTS, ETC.

WHITE LEAD IN OIL.

FIG. 1726.

WHITE LEAD, DRY.

FIG. 1727.

RED LEAD, DRY.

FIG. 1728.

White Lead, Etc.

Price, White Lead Ground in Oil, in 12½, 25, 50 and 100 Pound Kegs, and 1, 2, 3 and 5 Pound Cans	Price on Application.
Price, White and Red Lead, Dry, in Cans	
Price, Litharge, in 12½, 25, 50 and 100 Pound Kegs	

PAINTS.

FIG. 1729.

PUTTY.

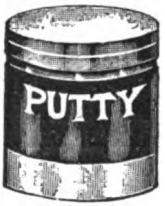

FIG. 1730.

Paints.

Price, Mixed Paints, ordinary colors	Price, Machinery Paints and Enamels
Price, colors in oils	Price, Iron and Wood Filler
Price, Priming colors	Price, Red Barn Paint
Price, Metallic Paints	Price, Asphaltum and Smoke
Price, Bridge and Iron Paints	Stack Enamel

Prices on Application.

Lamp Black.

Price per pound	.25

Dixon's Silica-Graphite Paint No. 2, Natural Color; No. 3, Dark Red; No. 4, Boiler and Stack Color.

Packages	½ Gal. Pails.	1 Gal. Pails.	5 Gal. Kegs.	10 Gal. Kegs.	25 Gal., ½ Bbl.	50 Gal. Bbls.
Price ...per gallon	1.60	1.50	1.45	1.40	1.35	1.30

Putty.

Packages	12½ lb. Cans	25 lb. Cans.	50 lb. Cans.	100 lb. Tubs.
Price...per pound	.06	.06	.05	.05

Putty can be furnished in Black, White Lead and Colors.
Prices on application.

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BRONZE AND METAL POLISH.

RADIATOR BRONZE.

FIG. 1731.

BRONZING LIQUID.

FIG. 1732.

RADIATOR ENAMEL.

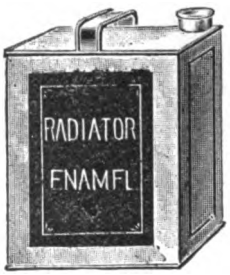

FIG. 1733.

Radiator Bronze.

Colors: Pale Gold, Rich Gold, Copper, Silver and Aluminum.

Price.....per pound	.....

Bronzing Liquid.

Price, in Gallon, Half Gallon and Quart Cans.....each	.....

Radiator Enamels.

Colors: Alabaster, Oak Brown, Apple Green, Blue Tint, Terra Cotta, Sea Green, Azure Blue, Light Drab, Gobelin, Lilac, Nile Green, Ebony, Light Pink, Maroon, Silver Gray, Cream, Bronze Green.

Price, in Gallon, ½ Gallon and Quart Cans.....each	.....

METAL POLISH.

FIG. 1734.

FIG. 1735.

FIG. 1736.

Columbia Paste Metal Polish.

Packages.....	2 Ounce.	8 Ounce.	16 Ounce.	5 Pounds.	10 Pounds.
Price.....each	.10	.25	.50	1.50	3.00

Ideal Liquid Metal Polish.

Packages.....	½ Pint.	1 Pint.	1 Quart.	1 Gallon.
Price.....each	.25	.40	.65	1.70

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STEAM AND GAS FITTERS CEMENTS AND COMPOUNDS.

CRANE'S CEMENT.

FIG. 1737.

GUMBO CEMENT.

FIG. 1738.

SMOOTH-ON.

FIG. 1739.

Crane's Cement.

Price, in one pound cans.....per can	.25

Gumbo Cement.

Packages	2 lb. Cans	4 lb. Cans	8 lb. Cans	25 lb. Cans	50 lb. Cans
Price,.....per can	.25	.50	1.00	2.75	5.25

Smooth-On Compound Iron Cement, for Engineers, Etc.

Packages	1 lb. Cans	5 lb. Cans	25 lb. Cans
Price.....per can	.40	2.00	7.50

Smooth-On Joints, for Cast Iron Pipe.

Packages	1 lb. Cans	5 lb. Cans	25 lb. Cans
Price.....per can	.25	1.25	3.75

ALUMINUM ELASTIC CEMENT.

FIG. 1740.

GRAPHITE JOINT COMPOUND.

FIG. 1741.

GAS FITTERS CEMENT.

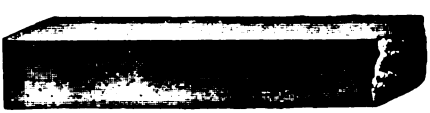

FIG. 1742.

Aluminum Elastic Cement.

Packages.....pounds	1	5	10	20	100
Price.....each	.25	1.25	2.50	5.00	20.00

Graphite Joint Compound.

Packages	1 lb. Cans	5 lb. Cans	10 lb. Cans	25 lb. Cans
Price.....per can	.20	.90	1.50	3.50

Gas Fitters Cement.

Price.....per pound	.20

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

MANILA ROPE.

FIG. 1743.

Estimated Weight and Strength of Cordage.

Manila, Sisal, and Jute Ropes weigh about alike. Tarred Hemp Cordage will weigh about one-fourth more. Hawser Laid Rope (unlubricated) will weigh one-sixth less. The working strain is one-third of the breaking strain. One fathom equals six feet in length.

Diameter, Inches.	Circumference, Inches.	Weight of 100 Fathoms Manila, Pounds.	Weight of 100 Fathoms, Tarred Hemp, Pounds.	Strain Borne by New Manila Rope, Pounds.	Length of Manila Rope in One Pound, Feet.	Inches.
3/16	9/16	12	17	400	50	
1/4	3/4	18	24	450	33	4
5/16	1	24	34	750	25	
3/8	1 1/8	30	45	900	20	
7/16	1 1/4	37	50	1250	17	8
1/2	1 1/2	46	55	1700	13	
9/16	1 3/4	65	75	2250	9	3
5/8	2	80	100	3000	7	6
3/4	2 1/4	98	125	4000	6	
13/16	2 3/8	120	155	5000	5	
7/8	2 3/4	142	190	5800	4	3
1	3	170	225	7000	3	6
1 1/16	3 1/4	190	265	8000	3	
1 1/8	3 1/2	220	300	9200	2	7
1 1/4	3 3/4	255	350	11000	2	3
1 5/16	4	300	405	12000	1	11
1 3/8	4 1/4	325	455	13500	1	8
1 1/2	4 1/2	375	510	15500	1	6
1 9/16	4 3/4	420	575	17000	1	5
1 5/8	5	460	640	19000	1	3
1 3/4	5 1/2	560	775	23500	1	
2	6	655	930	27000		10 3/8
2 1/8	6 1/2	770	1075	31500		9
2 1/4	7	900	1245	37000		7 7/8
2 3/8	7 1/2	1080	1405	42000		6 1/2
2 1/2	8	1225	1600	48000		5 1/2
2 7/8	8 1/2	1390	1780	54000		5
3	9	1542	2030	61000		4 1/2
3 1/8	9 1/2	1730	2285	67000		4
3 3/8	10	1920	2550	75000		3 1/2

Manila Rope is about 40 per cent. stronger than Sisal Rope.

Full Coils measure about 1200 feet in length; we also keep half coils measuring 600 feet. Prices on application.

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ROPE.

THE W. M. PATTISON SUPPLY CO. CLEVELAND O.

MANILA TRANSMISSION ROPE.

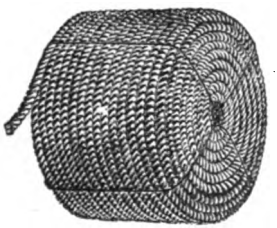

FIG. 1744.

WELL DRILL ROPE, HAWSER LAID.

FIG. 1745.

Manila Transmission Rope, 3 and 4 Strand.

Diameter.....inches	½	⅝	¾	⅞	1	1⅛	1¼
Weight per 100 feet.....pounds	9½	16	20	30	34	42	50
Strain borne by new rope.....pounds	2250	4000	5000	7500	9000	12250	14000
Diameter.....inches	1⅜	1½	1⅝	1¾	2	2¼	2½
Weight per 100 feet.....pounds	65	70	95	112	130	170	192
Strain borne by new rope.....pounds	18062	20250	25000	30250	36000	49000	56250

Prices on application.

Well Drill Rope, Hawser Laid.

Diameter.....inches	¾ to 2
Price.....per pound	.....

Manila Drilling Cable, Any Length to 4600 Feet.

Diameter.....inches	1⅞	2	2⅛	2¼
Price.....	.....	.....	.....	.....

Manila Bull Rope, Plain Laid.

Diameter.....inches	2⅛	2¼	2½
Price.....	.....	.....	.....

Manila Sand Line, Sucker Rod and Tubing Line, Hawser Laid.

Prices on application.

AA-A 1 Rope Dressing.

Price, Five and Ten pound cans.....per pound	.40

This dressing is for the preservation of all kinds of Manila and Cotton ropes, used for power transmission or hoisting purposes. It is estimated that ten pounds will cover about 1200 feet ¼ inch rope or its equivalent.

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ROPE.

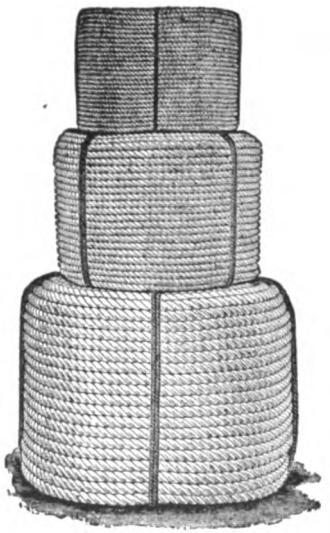

FIG. 1748.

Sisal Rope.

Diameter.....inches	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$
Price.....per pound					

Put up in coils of 1200 feet or half coils of 600 feet. The relative strength of Manilla to Sisal Rope is about as 7 is to 5.

Sisal Hide Rope.

Price, 2 or 3-ply medium.....per pound	
Price, 2 or 3-ply fine.....per pound	

Sisal Hay Rope

Price, 2 or 3 ply medium.....per pound	

Sisal Lath Yarn.

Number	B. 110 Strands	C. 130 Strands	D. 200 Strands
Price.....per pound			

Cotton Rope.

Diameter.....inches	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$
Price.....per pound				

Jute Rope.

Price, $\frac{1}{4}$ inch and upward.....per pound	

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LINES, CORDS, ETC.

CHALK LINES.

FIG. 1747.

SASH CORD.

FIG. 1748.

Cotton, Twisted or Braided Chalk Lines, in Hanks of 20 feet.

Number	0	1	2	3	4	5
Price, Cotton Twisted.....per gross	2.40	2.80	3.40	3.80	4.25	4.75
Price, Cotton Braided.....per gross	6.00	6.50	7.00	7.50	.....	.....

Cotton, Twisted Chalk Lines, in Balls.

Price, Cotton, Twisted Chalk Lines in two ounce balls.....per gross	.....

Bleached Cotton, Twisted Timber Lines, in Hanks of 100 feet.

Price .....per dozen	2.00

Mason Lines.

Number	1	2	3	4	5
Price, Brown Linen, twisted in coils of 84 feet..per dozen	2.00	2.25	2.75	3.40	4.00
Price, Bleached Cotton, braided in hanks of 48 feet.... per dozen	.....	.....	.....	2.00	.....

Sash Cord.

Number	6	7	8	9	10	12	.....	.....	.....
Size.....inches	$\frac{3}{16}$	$\frac{7}{32}$	$\frac{1}{4}$	$\frac{9}{32}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$
Feet .....per pound	66	55	46	40	30	24	.....	.....	.....
Price.....per pound	.50	.50	.50	.50	.50	.50	.50	.50	.50

Arc Light and Trolley Cords, Waterproof Finish.

Number	8	9	10	12
Size.....inches	$\frac{1}{4}$	$\frac{9}{32}$	$\frac{5}{16}$	$\frac{3}{8}$
Price.....per pound	.50	.50	.50	.50

Solid Braided Fancy Cotton Railroad Signal Cord, in Coils of 100 feet.

Price, No. 6 Blue, with orange spiral.....per pound	.60
Price, No. 8, Drab, with spiral of red, blue and yellow.....per pound	.60
Price, Nos. 6, 7, 8 and 9 mahogany.....per pound	.60
Price, Nos. 7, 8, 9 and 12 drab.....per pound	.55

Bell Cord Couplings.

Price, Nos. 8 and 9 Japanned or Tinned.....per dozen	.60
Price, Nos. 10 and 12 Japanned.....per dozen	.70

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TWINES.

FIG. 1749.

FLAX TWINE.

FIG. 1750.

HEMP TWINE.

FIG 1751.

MARLIN.

FIG. 1752.

Cotton Wrapping Twine.

Price, 3 and 4-ply in 5 pound sacks	per pound

Jute Wrapping Twine.

Price, 2, 3, 4, 5 and 6 ply in barrels of about 100 pounds	per pound

Jute Wool Twine.

Price, in Bales of about 100 pounds	per pound

Flax Twine.

Number	12 B	12 B C	18 A	18 B	18 B B	18 B C	24 A	24 B
Price per pound								

Number	24 B B	24 B C	36 B	36 B B	36 B C	48 B	48 B B	48 B C
Price per pound								

Hemp Twine.

Number	4	4½	5	6	7
Weight of Balls per pound	½	½	½	1	1
Price, India and Russia Hemp per pound					

Marlin.

Price, 2-ply in Balls and on Reels per pound	

Packing and Sack Needles.

FIG. 1753.

Number	14	13	12	11	10	9	8	7	6
Size inches	3	3½	4	4½	5	6	6½	7	8½
Price per hundred	2.00	2.00	2.25	2.67	3.00	4.00	4.33	5.33	8.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 619

WIRE TRANSMISSION OR HAULAGE ROPE.

Six Strands of Seven Wires Each and a Hemp Center.

FIG. 1754.

Sweedish Iron.

Diameter, Inches.	Price, Per Foot.	Approximate Circumfer'nce Inches.	Weight Per Foot, Pounds.	Approximate Breaking Strain, Tons. 2000 Pounds.	Allowable Working Strain, Tons. 2000 Pounds.	Minimum Size of Drum or Sheave, Feet.
3/16	.03½	7/8	.125	1.4	.28	2½
1/16	.03¾	1	.15	1.7	.34	2½
5/16	.04½	1⅛	.22	2.4	.48	2¾
7/16	.05½	1¼	.30	3.3	.66	3¼
1/2	.06½	1½	.39	4.2	.84	4
9/16	.08	1¾	.50	5.3	1.06	4½
5/8	.10	2	.62	6.6	1.32	5¼
11/16	.12	2⅛	.75	7.9	1.58	6
3/4	.14	2¼	.89	9.3	1.86	6¾
7/8	.17½	2¾	1.20	12	2.40	7½
1	.23	3	1.58	16	3.20	8½
1⅛	.29	3½	2.00	20	4.00	9½
1¼	.36	4	2.45	24	4.80	10¾
1⅜	.43	4½	3.00	29	5.80	12
1½	.51	4¾	3.55	34	6.80	13

Siemens—Martin Steel Rope, same list as Iron.

Cast Steel.

3/16	.04	7/8	.125	2.8	.56	1½
1/16	.04½	1	.15	3.4	.68	1¾
5/16	.05½	1⅛	.22	4.8	.96	2
7/16	.06½	1¼	.30	6.6	1.32	2¼
1/2	.07½	1½	.39	8.4	1.68	2½
9/16	.09	1¾	.50	10.6	2.12	3
5/8	.11	2	.62	13.2	2.64	3½
11/16	.13½	2⅛	.75	15.8	3.16	4
3/4	.16	2¼	.89	18.6	3.72	4½
7/8	.22	2¾	1.20	24.	4.80	5
1	.28	3	1.58	32.	6.40	5¾
1⅛	.36	3½	2.00	40.	8.00	6½
1¼	.43	4	2.45	48.	9.60	7¼
1⅜	.51	4¼	3.00	58.	11.60	8
1½	.60	4¾	3.55	68.	13.60	8½

For Galvanized or Tinned Rope or Rope with Wire Center add 10 per cent to list.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STANDARD WIRE HOISTING ROPE.

Six Strands of Nineteen Wires Each and a Hemp Center

ROEBLING

FIG. 1755.

Sweedish Iron.

Diameter, Inches.	Price, Per Foot.	Approximate Circumfer'nce Inches.	Weight Per Foot, Pounds.	Approximate Breaking Strain, Tons, 2000 Pounds.	Allowable Working Strain, Tons, 2000 Pounds.	Minimum Size of Drum or Sheave, Feet.
1/4	.06 1/2	3/4	.10	1.2	.24	3/4
5/16	.06 3/4	1	.15	1.7	.34	1
3/8	.07	1 1/8	.22	2.5	.50	1 1/2
7/16	.07 1/2	1 1/4	.30	3.4	.68	2
1/2	.08	1 1/2	.39	4.4	.88	2 1/4
9/16	.10	1 3/4	.50	5.5	1.10	2 3/4
5/8	.12	2	.62	6.8	1.36	3 1/2
3/4	.16	2 1/4	.89	9.7	1.94	4
7/8	.20	2 3/4	1.20	13	2.60	4 1/2
1	.26	3	1.58	17	3.40	5 1/4
1 1/8	.33	3 1/2	2.00	21	4.20	6
1 1/4	.40	4	2.45	25	5.00	6 1/2
1 3/8	.48	4 1/4	3.00	31	6.20	7
1 1/2	.57	4 3/4	3.55	36	7.20	7 1/2
1 5/8	.63	5	4.15	42	8.40	8 1/2
1 3/4	.80	5 1/2	4.85	48	9.60	10
2	.92	6 1/4	6.30	62	12.40	12
2 1/4	1.17	7 1/8	8.00	78	15.60	13
2 1/2	1.40	7 7/8	9.85	95	18.90	15
2 3/4	1.70	8 5/8	11.95	114	22.80	16

Siemens—Martin Steel Rope, same list as Iron.

Cast Steel.

1/4	.09	3/4	.10	2.4	.48	1/2
5/16	.09 1/4	1	.15	3.4	.68	2/3
3/8	.09 1/2	1 1/8	.22	5.0	1.00	1
7/16	.10	1 1/4	.30	6.8	1.36	1 1/4
1/2	.11	1 1/2	.39	8.8	1.76	1 1/2
9/16	.12	1 3/4	.50	11.0	2.20	1 3/4
5/8	.14	2	.62	13.6	2.72	2 1/4
3/4	.18	2 1/4	.89	19.4	3.88	3
7/8	.23	2 3/4	1.20	26	5.20	3 1/2
1	.30	3	1.58	34	6.80	4
1 1/8	.38	3 1/2	2.00	42	8.40	4 1/2
1 1/4	.46	4	2.45	50	10.00	5
1 3/8	.56	4 1/4	3.00	62	12.40	5 1/2
1 1/2	.66	4 3/4	3.55	72	14.40	5 3/4
1 5/8	.74	5	4.15	84	16.80	6 1/2
1 3/4	.93	5 1/2	4.85	96	19.20	7 1/4
2	1.11	6 1/4	6.30	124	24.80	8
2 1/4	1.42	7 1/8	8.00	156	31.20	8 1/2
2 1/2	1.75	7 7/8	9.85	190	37.90	9 1/2
2 3/4	2.10	8 5/8	11.95	228	45.60	10

For Galvanized or Tinned Rope, or Rope with Wire Center add 10 per cent to list.

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THE W. M. PATTISON SUPPLY CO. 621 CLEVELAND

EXTRA STRONG CRUCIBLE CAST STEEL WIRE ROPE.

ROEBLING

FIG. 1756.

Six Strands of Nineteen Wires Each and a Hemp Center.

Diameter, Inches.	Price. Per Foot	Approximate Circumfer'nce Inches	Weight, Per Foot, Pounds.	Approximate Working Strain, Tons, 2000 Pounds.	Allowable Working Strain, Tons, 2000 Pounds,	Minimum Size of Drum or Sheave, Feet.
1/4	.10 1/2	3/4	.10	2.70	.54	1/2
5/16	.10 3/4	1	.15	4.05	.81	2/3
3/8	.11	1 1/8	.22	5.78	1.15	1
7/16	.11 1/2	1 1/4	.30	7.80	1.56	1 1/4
1/2	.12 1/2	1 1/2	.39	10.1	2.02	1 1/2
9/16	.14	1 3/4	.50	12.7	2.54	1 3/4
5/8	.16 1/2	2	.62	15.8	3.16	2 1/4
3/4	.22	2 1/4	.89	22	4.40	3
7/8	.28	2 3/4	1.20	30	6.00	3 1/2
1	.36	3	1.58	39	7.80	4
1 1/8	.45	3 1/2	2.00	49	9.80	4 1/2
1 1/4	.55	4	2.45	58	11.60	5
1 3/8	.67	4 1/4	3.00	72	14.40	5 1/2
1 1/2	.80	4 3/4	3.55	84	16.80	5 3/4
1 5/8	.91	5	4.15	97	19.40	6 1/4
1 3/4	1.15	5 1/2	4.85	112	22.40	7 1/4
2	1.34	6 1/2	6.30	144	28.80	8
2 1/4	1.70	7 1/8	8.00	182	36.40	8 1/2
2 1/2	2.10	7 7/8	9.85	222	45.00	9 1/2
2 3/4	2.55	8 5/8	11.95	266	53.00	10

Seven Wires to the Strand.

3/32	.05	7/8	.125	3.22	.64	1 1/2
5/16	.05 1/2	1	.15	3.88	.77	1 3/4
3/8	.06	1 1/8	.22	5.58	1.11	2
7/16	.07 1/4	1 1/4	.30	7.5	1.50	2 1/4
1/2	.09 1/2	1 1/2	.39	9.7	1.94	2 1/2
9/16	.11 1/2	1 3/4	.50	12.3	2.46	3
5/8	.14	2	.62	15.1	3.02	3 1/2
11/16	.17	2 1/8	.75	18.4	3.68	4
3/4	.20	2 1/4	.89	21	4.20	4 1/2
7/8	.26	2 3/4	1.20	28	5.60	5
1	.34	3	1.58	37	7.40	5 3/4
1 1/8	.44	3 1/2	2.00	46	9.20	6 1/4
1 1/4	.53	4	2.45	56	11.20	7 1/4
1 3/8	.64	4 1/4	3.00	68	13.60	8
1 1/2	.75	4 3/4	3.55	79	15.80	8 1/2

For Galvanized or Tinned Rope or Rope with Wire Center, add 10 per cent to list.

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THE W. M. PATTISON SUPPLY CO. 622 CLEVELAND

PLOUGH STEEL WIRE ROPE.

ROEBLING

FIG. 1757.

Six Strands of Nineteen Wires Each and a Hemp Center.

Diameter, Inches.	Price, Per Foot.	Approximate Circumfer'nce Inches,	Weight Per Foot, Pounds.	Approximate Breaking Strain, Tons, 2000 Pounds.	Allowable Working Strain, Tons, 2000 Pounds.	Minimum Size of Drum or Sheave, Feet,
1/4	.12	3/4	.10	3	.60	3/4
5/16	.12 1/4	1	.15	4.5	.90	7/8
3/8	.12 1/2	1 1/8	.22	6.55	1.31	1
7/16	.13	1 1/4	.30	8.85	1.77	1 1/2
1/2	.14	1 1/2	.39	11.4	2.28	2
9/16	.16	1 3/4	.50	14.5	2.90	2 1/2
5/8	.19	2	.62	18	3.60	3
3/4	.26	2 1/4	.89	25	5.00	3 1/2
7/8	.34	2 3/4	1.20	34	6.80	3 3/4
1	.43	3	1.58	44	8.80	4 1/2
1 1/8	.52	3 1/2	2.00	56	11.2	4 1/2
1 1/4	.63	4	2.45	67	13.4	5
1 3/8	.77	4 1/4	3.00	82	16.4	5 1/4
1 1/2	.93	4 3/4	3.55	96	19.2	5 1/2
1 5/8	1.08	5	4.15	111	22.2	6
1 3/4	1.35	5 1/2	4.85	128	25.6	7 1/2
2	1.56	6 1/4	6.30	165	33.0	8
2 1/4	2.00	7 1/8	8.00	208	41.6	9
2 1/2	2.50	7 7/8	9.85	254	50.8	10
2 3/4	3.00	8 5/8	11.95	305	61.0	11

Seven Wires to the Strand.

3/32	.05 1/2	7/8	.125	3.65	.73	1
5/16	.06	1	.15	4.35	.87	1 1/4
3/8	.06 1/2	1 1/8	.22	6.35	1.27	1 1/2
7/16	.08	1 1/4	.30	8.55	1.71	2
1/2	.11	1 1/2	.39	11	2.20	2 1/2
9/16	.14	1 3/4	.50	14	2.80	2 3/4
5/8	.17	2	.62	17	3.40	3
11/16	.20	2 1/8	.75	21	4.20	3 1/2
3/4	.25	2 1/4	.89	24	4.80	4
7/8	.32	2 3/4	1.20	32	6.40	5
1	.41	3	1.58	42	8.40	5 1/2
1 1/8	.51	3 1/2	2.00	53	10.60	6 1/4
1 1/4	.61	4	2.45	64	12.80	7 1/4
1 3/8	.75	4 1/4	3.00	78	15.60	8
1 1/2	.90	4 3/4	3.55	91	18.20	8 1/2

For Galvanized or Tinned Rope or Rope with Wire Center, add 10 per cent to list.

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THE W. M. PATTISON SUPPLY CO. 623 CLEVELAND

GALVANIZED IRON WIRE ROPE

For Ships' Rigging and Derrick Guys.

ROEBLING

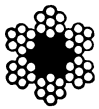

FIG. 1758.

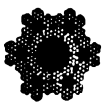

FIG. 1759.

Six Strands of Seven or Twelve Wires Each and a Hemp Center.

Diameter, Inches.	PRICE. Seven Wires to the Strand Per Foot.	PRICE. Twelve Wires to the Strand Per Foot.	Approximate Circumfer'nce Inches.	Weight Per Foot, Pounds.	Approximate Breaking Strain, Tons, 2000 Pounds.	Circumference of New Manilla Rope of Equal Strength, Inches
5/16	.03½	.....	1	.16	1.4	2
3/8	.04	.....	1⅛	.20	1.8	2¼
7/16	.05	.....	1¼	.25	2.3	2½
½	.06	.....	1½	.36	3.2	3
9/16	.07	.....	1¾	.49	4.4	3¾
5/8	.08	.....	2	.64	5.8	4
¾	.09	.....	2¼	.81	7.3	4¾
13/16	.10	.....	2½	1.00	9.0	5
7/8	.12	.....	2¾	1.21	11	5¼
1	.14	.15	3	1.44	13	5¾
1 1/16	.16	.17	3¼	1.70	15	6
1⅛	.18	.19	3½	1.95	18	6½
1 3/16	.21	.22	3¾	2.25	20	7½
1¼	.24	.25	4	2.55	23	8
1⅜	.27	.29	4¼	2.90	26	8½
1 7/16	.31	.33	4½	3.25	29	9
1½	.35	.37	4¾	3.60	32	9½
1⅝	.38	.40	5	4.00	36	10
1 11/16	.41	.43	5¼	4.40	40	10½
1¾	.44	.46	5½	4.85	44	11
3/16	Five Strands, Seven Wires Each.	.02	⅛	.04	.36	1⅛
7/32		.02¼	5/32	.063	.56	1¼
¼		.02½	¾	.09	.81	1½
9/32		.03	7/32	.123	1.10	1¾

For Rope with Wire Center, add 10 per cent to list.

WIRE TILLER ROPE.

Six Ropes of Six Strands of Seven Wires, and a Hemp Center.

Diameter, Inches.	PRICE. Iron, Per Foot.	PRICE. Cast Steel, Per Foot.	Approximate Circumference, Inches.	Weight Per Foot, Pounds.
¼	.07½	.11	¾	.07
5/16	.08	.12½	1	.11
3/8	.09	.14	1⅛	.16
7/16	.10	.15	1¼	.21
½	.11	.17	1½	.28
9/16	.14	.19	1¾	.35
⅝	.17	.24	2	.43
¾	.22	.30	2¼	.62
7/8	.27	.30	2¾	.84
1	.33	.43	3	1.10

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GALVANIZED STEEL WIRE STRAND.

For Smokestack Guys, Signal Strand, Trolley Line, Span Wire, Etc.

FIG. 1760.

Seven Wires Twisted Together.

Diameter..... ..... inches	3/32	1/8	5/32	3/16	1/4	5/16	3/8	7/16	1/2
Price.....per hundred feet	.35	.45	.60	.80	1.15	1.60	2.00	2.50	3.15
Weight, per hundred feet.....pounds	2.25	3.50	5	8	13	22	30	40	52
Approximate Breaking Strain pounds	320	375	700	1000	1750	3300	4700	6000	8320

Galvanized strand is made to order of wire of any strength from 60,000 pounds to 350,000 pounds per square inch. When it is intended to run over sheaves a soft wire is advisable.

For strands of larger diameter than those given in the table, or if to be prepared from special stock, apply for information and prices.

List for Splicing Rope to Make Endless.

Diameter of Rope.....inches	1/4 to 5/16	3/8 to 7/16	1/2 to 3/4	7/8 to 1 1/8	1 1/4 to 1 1/2
Price for Splicing.....	2.50	3.00	3.50	4.00	4.50

The charge named to be in addition to the charge made for rope used in making the splice. The prices named to apply only on wire ropes spliced at the works of the manufacturer. Special charge will be made for splicing done elsewhere; such charge depending on the circumstances of each individual case.

IRON, TINNED, GALVANIZED AND COPPER SASH CORDS.

Six Strands of Seven Wires and a Cotton Center.

Diameter... .....inches	1/16	3/32	1/8	5/16	7/32	1/4
Price, Iron.....per foot	.01 1/4	.01 1/2	.01 3/4	.02 1/4	.02 3/4	.03
Price, Tinned or Galvanized...per foot	.01 3/4	.02	.02 1/4	.03	.03 1/4	.04
Price, Copper.....per foot	.03	.03 1/4	.04 1/2	.06	.07 1/2	.09
Weight, Iron..... per foot	.006	.014	.025	.056	.076	.100
Weight, Copper.....per foot	.007	.016	.029	.064	.087	.115
Approximate Breaking Strain, Bright Iron.....pounds	262	510	790	1417	1809	2200
Approximate Breaking Strain, Annealed Iron.....pounds	132	280	467	947	1254	1600
Approximate Breaking Strain, Bright Copper..... pounds	140	272	435	792	1022	1265

Annealed Cords same prices as bright cords.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 625

WIRE ROPE FASTENINGS.

CROSBY CLIPS.

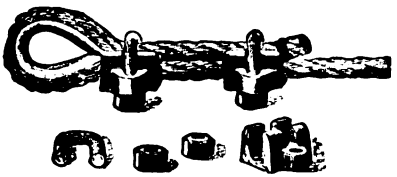

FIG. 1761.

WROUGHT IRON CLIPS.

FIG. 1762.

Crosby and Wrought Iron Clips.

Diameter of Rope.....inches	¼	5/16	⅜	½	5/8	¾	⅞	1
Price, Crosby Clips.....each	.25	.25	.25	.30	.35	.40	.45	.50
Price, Wrought Iron Clips each	.25	.25	.25	.30	.35	.40	.45	.50
Diameter of Rope.....inches	1⅛	1¼	1⅜	1½	1¾	2	2¼	2½
Price, Crosby Clips.....each	.50	.50	.55	.60	3.50	4.00	5.00	6.00
Price Wrought Iron Clips..each	.60	.65	.....	.75	.....	.....	.....	.....

THIMBLE.

FIG. 1763.

Heavy Galvanized Oval Thimbles.

Circumference of Rope...inches	¾	1	1⅛	1¼	1½	1¾	2
Width, Score.....inches	¼	5/16	⅜	7/16	½	9/16	⅝
Price .....each	.08	.08	.09	.10	.11	.12	.13
Circumference of Rope...inches	2¼	2½	3	3½	4	4¼	4¾
Width, Score.....inches	¾	⅞	1	1⅛	1¼	1⅜	1½
Price .....each	.15	.16	.20	.25	.33	.42	.50

THIMBLES SPLICED ON ROPE.

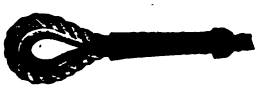

FIG. 1764.

FIG. 1765.

Diameter of Rope.....inches	¼	5/16	⅜	7/16	½	9/16	⅝
Price, for Iron Rope..... each	1.00	1.00	1.05	1.10	1.15	1.20	1.45
Price, for Steel Rope.....each	1.10	1.10	1.15	1.20	1.25	1.30	1.55
Diameter of Rope.....inches	¾	⅞	1	1⅛	1¼	1⅜	1½
Price, for Iron Rope..... each	1.85	2.40	2.85	3.65	4.35	5.25	6.00
Price, for Steel Rope.....each	2.00	2.55	3.00	3.90	4.70	5.75	6.50

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WIRE ROPE FASTENINGS.

Closed Sockets.

FIG. 1768.

FIG. 1767.

Diameter of Rope.....inches	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8
Price, Loose, for Iron or Steel Rope.....each	.70	.70	.85	.85	1.10	1.10	1.35	1.65	1.85
Price, Fastened, for Iron or Steel Rope...each	1.60	1.60	1.85	2.00	2.25	2.35	2.65	3.15	3.85

Diameter of Rope.....inches	1	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	2	2 1/4
Price, Loose, for Iron or Steel Rope.....each	2.40	3.30	4.50	6.00	6.80	12.00	13.00	16.00	21.00
Price, Fastened, for Iron or Steel Rope...each	4.65	6.15	8.00	10.25	11.80	18.00	21.00	25.50	32.00

Open Sockets.

FIG. 1766.

FIG. 1769.

Diameter of Rope.....inches	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8
Price, Loose, for Iron or Steel Rope.....each	.85	.85	1.00	1.00	1.35	1.35	1.65	2.10	2.50
Price, Fastened, for Iron or Steel Rope...each	1.75	1.75	2.00	2.15	2.50	2.60	2.95	3.60	4.50

Diameter of Rope.....inches	1	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	2	2 1/4
Price, Loose, for Iron or Steel Rope.....each	3.15	4.50	6.10	7.50	8.00	13.00	15.50	16.50	23.00
Price, Fastened, for Iron or Steel Rope.. each	5.40	7.35	9.60	11.75	13.00	19.00	23.50	26.00	34.00

HOOK AND THIMBLE.

FIG. 1770.

SISTER HOOK AND THIMBLE.

FIG. 1771.

Hooks and Thimbles and Sister Hooks and Thimbles.

Diameter of Rope.....inches	1/4	5/16	3/8	7/16	1/2	9/16	5/8
Price, Loose, for Iron Rope.....each	.50	.50	.55	.60	.65	.75	.85
Price, Fastened, for Iron Rope.....each	1.50	1.50	1.60	1.70	1.80	1.95	2.20
Price, Loose, for Steel Rope.....each	.65	.65	.70	.75	.80	1.10	1.40
Price, Fastened, for Steel Rope.....each	1.75	1.75	1.85	1.95	2.05	2.40	2.85

Diameter of Rope.....inches	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2
Price, Loose, for Iron Rope.....each	1.10	1.40	1.90	2.40	2.65	3.40	5.00
Price, Fastened, for Iron Rope.....each	2.85	3.70	4.65	5.90	6.90	8.65	11.00
Price, Loose, for Steel Rope.....each	1.85	2.90	3.75	4.40	4.60	5.40	7.00
Price, Fastened, for Steel Rope.....each	3.75	5.35	6.70	8.15	9.20	11.15	13.50

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THE W. M. FATTIS ON SUPPLY CO. CLEVELAND 627

WIRE ROPE FASTENINGS.

HOOK AND SOCKET.

FIG. 1772.

SWIVEL HOOK AND SOCKET.

FIG. 1773.

Hooks and Sockets.

Diameter of Rope.....inches	¼	5/16	⅜	7/16	½	9/16	⅝
Price, Loose, for Iron Rope..each	1.25	1.25	1.50	1.55	1.95	2.00	2.30
Price, Fastened, for Iron Rope...each	2.15	2.15	2.50	2.70	3.10	3.25	3.60
Price, Loose, for Steel Rope, each	1.45	1.45	1.65	1.70	2.10	2.45	2.90
Price, Fastened, for Steel Rope..each	2.35	2.35	2.65	2.85	3.25	3.70	4.20

Diameter of Rope.....inches	¾	⅞	1	1⅛	1¼	1⅜	1½
Price, Loose, for Iron Rope..each	3.00	3.70	4.60	6.25	8.00	10.25	12.50
Price, Fastened, for Iron Rope...each	4.50	5.70	6.85	9.10	11.50	14.50	17.50
Price, Loose, for Steel Rope, each	3.85	5.25	6.50	8.25	10.00	12.30	14.50
Price, Fastened, for Steel Rope..each	5.35	7.25	8.75	11.10	13.50	16.55	19.50

Swivel Hooks and Sockets.

Diameter of Rope.....inches	¼	5/16	⅜	7/16	½	9/16	⅝
Price, Loose, for Iron Rope..each	2.00	2.00	2.35	2.55	3.00	3.00	3.60
Price, Fastened, for Iron Rope...each	2.90	2.90	3.35	3.70	4.15	4.25	4.90
Price, Loose, for Steel Rope, each	2.30	2.30	2.70	2.85	3.55	3.75	4.60
Price, Fastened, for Steel Rope..each	3.20	3.20	3.70	4.00	4.70	5.00	5.90

Diameter of Rope.....inches	¾	⅞	1	1⅛	1¼	1⅜	1½
Price, Loose, for Iron Rope..each	4.00	4.75	5.70	9.00	13.50	17.00	22.00
Price, Fastened, for Iron Rope...each	5.50	6.75	7.95	11.85	17.00	21.25	27.00
Price, Loose, for Steel Rope, each	5 25	7.00	8.35	12.00	17.00	21.00	27.00
Price, Fastened, for Steel Rope..each	6.75	9.00	10.60	14.85	20.50	25.25	32.00

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THIMBLES AND HOOKS.

THIMBLE FOR MANILA ROPE.

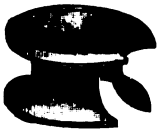

FIG. 1774.

HOOK AND THIMBLE FOR MANILA ROPE.

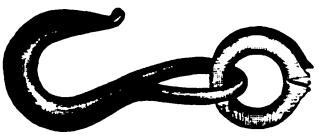

FIG. 1775.

SAFETY LINK HOOK.

FIG. 1776.

Thimbles for Manila Rope.

Size ..... inches	3/4	7/8	1	1 1/4	1 3/8	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3
Price, Plain ..... per dozen	.24	.24	.24	.28	.30	.32	.35	.50	.70	.80	1.00	1.25
Price, Black ..... per dozen	.26	.26	.26	.30	.32	.34	.40	.55	.80	.95	1.20	1.40
Price, Galvanized ..... per dozen	.28	.28	.28	.32	.34	.36	.45	.60	.90	1.10	1.40	1.60

Hooks and Thimbles for Manila Rope.

Size .. .. inches	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	.....	.....
Price, Black. ..... per dozen	1.40	1.50	1.60	1.70	1.80	2.00	2.25	3.00	4.00	.....	.....
Price, Galvanized ..... per dozen	1.50	1.60	1.75	1.90	2.00	2.25	2.50	3.50	4.50	.....	.....

Size ..... inches	1	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	1 7/8	2	2 1/4	2 1/2
Price, Black ..... per pound	.16	.16	.16	.16	.16	.16	.16	.16	.16	.16	.16
Price, Galvanized ..... per pound	.20	.20	.20	.20	.20	.20	.20	.20	.20	.20	.20

Safety Link Hooks.

Size ..... inches	5/8	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	1 7/8	2
Price ..... each	1.00	1.25	1.50	2.00	2.25	2.50	3.00	3.50	4.00	4.50	5.00	6.00

HOIST HOOK.

FIG. 1777.

BARREL OR CAN HOOK.

FIG. 1778.

Hoist Hooks.

Diam. of Eye...in.	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	2	2 3/8	2 3/4
Price ..... each	15.00	18.00	21.00	27.00	36.00	50.00	70.00	95.00	125.00	165.00	215.00	290.00
Capacity ..... tons	.5	.6	.7	1.2	1.7	2.1	2.5	3	4	4.7	5.5	6.8

Barrel or Can Hooks.

Diameter of Iron ..... inches	3/8	7/16	1/2	5/8	3/4	7/8
Price, Black ..... per pair	.60	.70	.85	1.10	1.50	2.00
Price, Galvanized ..... per pair	.65	.80	1.00	1.25	1.75	2.25

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HOOKS AND GRABS.

BALE HOOK.

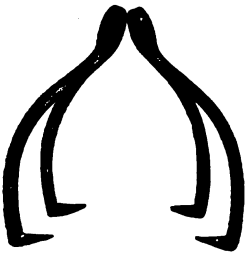

FIG. 1779.

BOX HOOK.

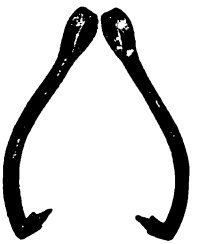

FIG. 1780.

Bale and Box Hooks.

Price, Single, Bale or Box Hooks	per pair	.80
Price, Double, Bale or Box Hooks	per pair	1.40

GRAB HOOK.

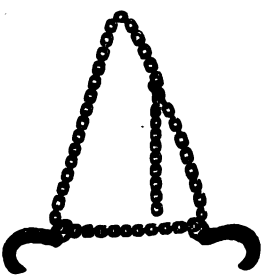

FIG. 1781.

STONE SETTERS GRAB

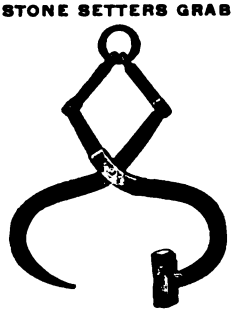

FIG. 1782.

Grab Hooks.

To Lift	tons	2	4	6	10	15	20	25
Length of Chain	feet	8	10	12	15	16	16	16
Size of Chain	inches	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$
Price	each	7.10	9.00	11.30	16.30	21.50	27.90	33.75
Price, Hooks Only	each	5.00	6.50	8.00	10.50	14.00	18.00	21.50
Price, Chain Only, with Hook and Ring	each	2.10	2.50	3.30	5.80	7.50	9.90	12.25

Stone Setters Grabs.

To Lift	pounds	1500	2500	4000	6000
Price	each	5.50	6.25	7.00	9.25

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SHEAVES FOR WIRE ROPE.

TRANSMISSION, RUBBER AND LEATHER LINED GROOVES.

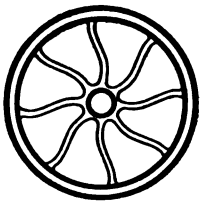

FIG. 1783.

LIGHT ARM SUPPORTING, WITH WIDE GROOVES.

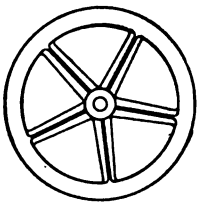

FIG. 1784.

Transmission.

Diameter at Bottom of Groove.....feet	1½	2	2½	3	4	5	6
Price.....each	5.50	7.50	10.50	15.00	24.00	37.00	59.00

Diameter at Bottom of Groove.....feet	7	8	9	10	11	12	.....
Price.....each	72.00	95.00	120.00	150.00	220.00	265.00	.....

Light Arm Supporting.

Diameter at Bottom of Groove.....inches	12	14	16	18	20	22	24	26	28	30
Price.....each	2.50	2.80	3.40	3.60	4.40	5.80	6.00	8.00	9.00	11.00

HEAVY IRON HOISTING.

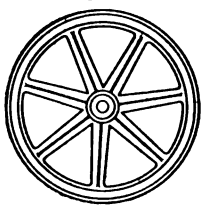

FIG. 1785.

HEAVY IRON HOISTING, WOOD LINED GROOVES.

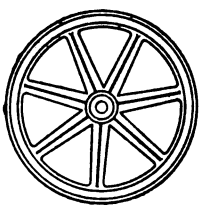

FIG. 1786.

Heavy Iron Hoisting.

Diameter at Bottom of Groove.....feet	3	4	5	6
Price.....each	22.00	35.00	45.00	55.00

Heavy Iron Hoisting, Wood Lined Grooves.

Diameter at Bottom of Groove.....feet	3	4	5	6
Price.....each	45.00	60.00	72.00	130.00

Light Iron Hoisting.

Diameter at Bottom of Groove.....feet	12	14	16	18	24	30
Price.....each	1.75	2.25	2.50	3.00	4.00	6.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 631

SHEAVES FOR REGULAR BLOCKS.

SOLID.

FIG. 1787.

FOR MANILA ROPE

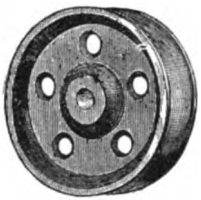

FIG. 1788.

FOR WIRE ROPE.

FIG. 1789

MORTISE, SWIVEL AND SNATCH. For Manila Rope.							GIN AND DERRICK. For Wire Rope,						
Diameter, Inches.	Thickness, Inches.	Hole, Inches.	Size of Block, Inches.	Price, Plain Bushed, Each.	Price, Roller Bushed, Each.	Price, Self Lubricating, Bronze Bushed, Each.	Diameter, Inches.	Thickness, Inches.	Hole, Inches.	Size of Block, Inches.	Price, Plain Bushed, Each.	Price, Roller, Bushed, Each.	Price, Self Lubricating, Bronze Bushed, Each.
* 2			3½	.12	.....	.85	* 8			8	2.00	.....	3.50
* 2¼			4	.13	.55	.90	9½			12	2.00	.....	3.00
* 2½			5	.15	.65	.95	*10		1	10	2.40	.....	4.00
* 3¼	1		6	.25	.75	1.10	10½			13	2.50	.....	3.75
* 3½			7	.28	.....	1.25	*12		1	12	3.00	.....	4.75
* 4			8	.35	.....	1.50	12	2	1	16	4.00	.....	7.00
* 4½			7	.33	.90	1.30	*14	2	1	14	3.75	.....	5.50
* 4¾			8	.40	1.10	1.45	*14		1	18	5.00	.....	8.00
* 5¼			9	.50	1.30	1.65	*16	2	1	16	4.75	.....	6.75
* 5½			10	.70	.....	2.00	*18			18	6.00	.....	8.00
6			10	.65	1.60	1.95	*20			20	7.50	.....	9.50
* 7	2	1	12	1.10	.....	2.90	*22			22	9.00	.....	14.00
7½			12	.95	2.00	2.40	.....	.....	.....	.....	.....	.....	.....
7½	2		12	1.15	.....	2.75	.....	.....	.....	.....	.....	.....	.....
8			14	1.65	.....	3.40	.....	.....	.....	.....	.....	.....	.....
8¼		1	14	1.25	2.50	2.85	.....	.....	.....	.....	.....	.....	.....
8½		1	14	1.40	.....	3.00	.....	.....	.....	.....	.....	.....	.....
9			16	2.25	.....	4.25	.....	.....	.....	.....	.....	.....	.....
*10			16	2.00	.....	4.00	.....	.....	.....	.....	.....	.....	.....
*10			17	2.50	.....	5.25	.....	.....	.....	.....	.....	.....	.....
*11			18	3.00	.....	6.00	.....	.....	.....	.....	.....	.....	.....
*13	4		20	4.00	.....	8.50	.....	.....	.....	.....	.....	.....	.....
*15			22	7.00	.....	14.00	.....	.....	.....	.....	.....	.....	.....
*17	5		24	10.00	.....	19.00	.....	.....	.....	.....	.....	.....	.....

☞ All Sheaves marked thus *, are solid pattern; others are open pattern.

Roller Bushed Sheaves for 4, 5 and 6 inch blocks have five roller bushings. All larger have six roller bushings.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

REGULAR WOOD SHELL TACKLE BLOCKS.

FIG. 1790.

FIG. 1791.

FIG. 1792.

DIMENSIONS, INCHES.			IRON BUSHED.			ROLLER BUSHED.		
Sheaves.	Diameter Rope.	Shell.	Price, Single, Each.	Price, Double, Each.	Price, Triple, Each.	Price, Single, Each.	Price, Double, Each.	Price, Triple, Each.
1¾ x ¾ x		3	.70	1.30	1.75	1.10	2.00	2.90
2 x ¾ x		3½	.75	1.45	2.00	1.15	2.20	3.15
2¼ x ¾ x		4	.85	1.60	2.15	1.20	2.25	3.25
3 x ¾ x		5	.90	1.75	2.25	1.25	2.35	3.50
3½ x 1 x		6	1.10	2.00	2.90	1.50	2.85	4.40
4¼ x 1 x		7	1.30	2.40	3.50	1.70	3.35	5.00
4¾ x 1¼ x	1	8	1.65	2.85	4.25	2.25	4.15	6.00
5¾ x 1¼ x	1	9	1.85	3.40	4.75	2.50	4.70	7.25
6¼ x 1¼ x	1¼	10	2.75	4.50	6.25	3.50	6.00	8.50
7¼ x 1¼ x	1¼	11	4.45	7.50	10.65	5.30	9.20	13.20
8 x 1¼ x	1¼	12	4.45	7.50	10.65	5.30	9.20	13.20
9 x 1¼ x	1¼	13	7.00	10.50	15.00	8.15	12.80	18.45
9½ x 1¼ x	1¼	14	7.00	10.50	15.00	8.15	12.80	18.45
10 x 1¼ x	1¼	15	8.00	13.00	18.00	9.25	15.50	21.75
11 x 1¼ x	1¼	16	10.00	15.00	22.00	11.50	18.00	26.50

Heavy Wood Tackle Blocks.

DIMENSIONS, INCHES.			IRON BUSHED.			ROLLER BUSHED.		
Sheaves.	Diameter Rope.	Shell.	Price, Single, Each.	Price, Double, Each.	Price, Triple, Each.	Price, Single, Each.	Price, Double, Each.	Price, Triple, Each.
4¼ x 1¼ x	1	7	2.25	4.00	5.50	3.00	5.50	7.75
4¾ x 1¼ x	1¼	8	2.75	4.50	6.30	3.50	6.00	8.55
5½ x 1¼ x	1¼	9	3.15	5.25	7.25	4.00	6.95	9.80
6¼ x 1¼ x	1¼	10	4.00	6.50	8.50	5.25	9.00	12.25
7 x 1¼ x	1¼	11	5.25	8.50	12.50	6.50	11.00	16.25
8 x 1¼ x	1¼	12	5.25	8.50	12.50	6.50	11.00	16.25
9 x 1¼ x	1¼	13	8.00	13.00	17.00	9.75	16.50	22.25
9½ x 1¼ x	1¼	14	8.00	13.00	17.00	9.75	16.50	22.25
10 x 1¼ x 1	1¼	15	9.00	15.00	20.00	11.00	19.00	26.00
11 x 2¼ x 1	2	16	11.50	18.00	28.00	14.00	23.00	35.50

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THE W. M. PATTISON SUPPLY CO. 633 CLEVELAND

CLEVELAND TACKLE BLOCKS.

Regular Mortise.

FIG. 1793.

FIG. 1794.

FIG. 1795.

DIMENSIONS, INCHES.			PLAIN BUSHED			ROLLER BUSHED.		
Sheaves.	Diameter, Rope,	Shell,	Price, Single, Each.	Price, Double, Each.	Price, Triple, Each.	Price, Single, Each.	Price, Double, Each.	Price, Triple, Each.
2¼x1 1/16	1/2	4	.90	1.75	2.50	.....	.....	.....
2¾x 7/8	5/8	5	1.00	1.90	2.75	1.50	2.90	4.25
3¼x1	3/4	6	1.25	2.25	3.25	1.75	3.25	4.75
4¼x1 1/8	7/8	7	1.50	2.70	4.00	2.10	3.85	5.80
5 x1¼	1	8	1.85	3.20	4.75	2.55	4.60	6.85
5½x1⅛	1 1/8	9	2.40	4.00	5.50	3.20	5.60	7.90
6¼x1⅜	1¼	10	3.10	5.10	7.00	4.05	7.00	9.85
7½x1½	1⅜	12	5.00	8.25	11.75	6.00	10.35	14.90
8½x1⅝	1½	14	7.50	11.75	16.50	8.75	14.25	20.25

DIMENSIONS, INCHES.			BALL BEARING BUSHING.			Self Lubricating, Phosphor Bronze Bushings.		
Sheaves.	Diameter, Rope,	Shell.	Price. Single, Each.	Price. Double, Each.	Price, Triple, Each.	Price, Single, Each.	Price. Double, Each.	Price, Triple. Each.
2¼x1 1/16	1/2	4	1.20	2.25	3.25	1.65	3.25	4.75
2¾x 7/8	5/8	5	1.35	2.50	3.75	1.80	3.50	5.15
3¼x1	3/4	6	1.60	2.85	4.35	2.10	4.00	5.80
4¼x1 1/8	7/8	7	1.90	3.35	5.00	2.45	4.60	6.85
5 x1¼	1	8	2.35	4.15	6.00	2.90	5.30	7.90
5½x1⅛	1 1/8	9	2.85	5.15	7.25	3.55	6.30	9.00
6¼x1⅜	1¼	10	3.50	6.40	8.75	4.40	7.70	11.00
7½x1½	1⅜	12	5.25	9.50	13.50	6.45	11.15	16.00
8½x1⅝	1½	14	8.00	13.50	19.00	9.10	15.00	21.30

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEEL TACKLE BLOCKS.

Regular Mortise.

FIG. 1796.

FIG. 1797.

FIG. 1798

DIMENSIONS, INCHES.			PLAIN BUSHED.			FIVE AND SIX STEEL ROLLER BUSHINGS.		
Sheaves.	Diameter Rope.	Shell.	Price, Single, Each.	Price, Double, Each.	Price, Triple, Each.	Price, Single, Each.	Price, Double, Each.	Price, Triple, Each.
2¼ x 1/16 x 3/8	1/4	4	.85	1.60	2.15	1.20	2.25	3.25
2¾ x 1/8 x 7/16	5/16	5	.90	1.75	2.25	1.25	2.35	3.50
3¼ x 1 x ½	3/8	6	1.10	2.00	2.90	1.50	2.85	4.40
4¼ x 1⅛ x 9/16	7/16	7	1.30	2.40	3.50	1.70	3.35	5.00
4¾ x 1¼ x 5/8	1/2	8	1.65	2.85	4.25	2.25	4.15	6.00
5½ x 1⅜ x 11/16	1	9	1.85	3.40	4.75	2.50	4.70	7.25
6 x 1⅝ x ¾	1⅛	10	2.75	4.50	6.25	3.50	6.00	8.50
7½ x 1⅞ x ⅞	1¼	12	4.45	7.50	10.65	5.30	9.20	13.20
8½ x 1⅞ x 1	1½	14	7.00	10.50	15.00	8.15	12.80	18.45

DIMENSIONS, INCHES.			SELF LUBRICATING, GRAPHITE BRONZE BUSHINGS.		
Sheaves.	Diameter Rope.	Shell.	Price, Single, Each.	Price, Double, Each.	Price, Triple, Each.
2¼ x 1/16 x 3/8	1/4	4	1.50	2.90	4.10
2¾ x 1/8 x 7/16	5/16	5	1.65	3.25	4.50
3¼ x 1 x ½	3/8	6	1.95	3.70	5.45
4¼ x 1⅛ x 9/16	7/16	7	2.25	4.30	6.35
4¾ x 1¼ x 5/8	1	8	2.75	5.05	7.55
5½ x 1½ x 11/16	1⅛	9	3.10	5.90	8.50
6 x 1⅝ x ¾	1¼	10	4.15	7.30	10.45
7½ x 1¾ x ⅞	1⅜	12	6.05	10.70	15.45
8½ x 1⅞ x 1	1½	14	8.85	14.20	20.55

All the above Blocks larger than 8-inch are Wide Mortise Blocks.

Unless otherwise ordered we furnish all the single, half of the double and one-third of the triple blocks with beckets.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

GALVANIZED STEEL TACKLE BLOCKS.

Regular Mortise.

FIG. 1799.

FIG. 1800.

FIG 1801.

DIMENSIONS, INCHES.			PLAIN BUSHED.			FIVE AND SIX STEEL ROLLER BUSHINGS.		
Sheaves.	Diameter, Rope.	Shell.	Price, Single, Each.	Price, Double Each.	Price, Triple, Each.	Price, Single, Each.	Price, Double, Each.	Price, Triple, Each.
2¼x1⅛x⅜	½	4	1.00	1.80	2.70	1.35	2.45	3.80
2¾x⅞x 7/16	5/8	5	1.10	2.05	2.85	1.45	2.65	4.10
3½x 1 x ½	¾	6	1.35	2.45	3.75	1.75	3.30	5.25
4⅛x1⅛x 9/16	⅞	7	1.75	3.15	4.85	2.15	4.10	6.35
4⅝x1¼x ⅝	1	8	2.35	3.85	5.75	2.95	5.15	7.50
5½x1½x1⅛	1⅛	9	2.75	4.75	6.75	3.50	6.05	9.25
6 x1⅝x ¾	1¼	10	3.95	6.40	9.00	4.70	7.90	11.25
7½x1⅞x ⅞	1⅜	12	6.20	10.00	15.00	7.05	11.70	17.50
8½x1⅞x 1	1½	14	9.50	14.00	21.00	10.65	16.30	24.50

DIMENSIONS, INCHES.			SELF LUBRICATING. GRAPHITE BRONZE BUSHINGS.		
Sheaves.	Diameter, Rope.	Shell.	Price, Single, Each.	Price, Double, Each.	Price, Triple, Each.
2¼x1⅛x⅜	½	4	1.80	3.40	5.05
2¾x⅞x 7/16	5/8	5	2.05	3.90	5.60
3½x 1 x ½	¾	6	2.45	4.55	6.85
4⅛x1⅛x 9/16	⅞	7	2.95	5.50	8.35
4⅝x1¼x ⅝	1	8	3.65	6.50	9.85
5½x1½x1⅛	1⅛	9	4.40	7.75	11.20
6 x1⅝x ¾	1¼	10	5.65	9.80	14.30
7½x1⅞x ⅞	1⅜	12	8.05	13.90	20.90
8½x1⅞x 1	1½	14	11.65	18.40	27.60

All the above Blocks larger than 8 inch are wide mortise Blocks.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

EDDY STEEL TACKLE BLOCKS.

Regular Mortise.

FIG. 1802.

FIG. 1803.

Dimensions, Inches.		Plain Bushed.		Steel Roller Bushing.		Self Lubricating, Graphite Bronze Bushing.	
Diameter, Rope.	Shell.	Price, Single, Each.	Price Double, Each.	Price, Single, Each.	Price, Double, Each.	Price, Single, Each.	Price, Double, Each.
⅜	3½	.75	1.45	.....	.....	1.40	2.75
½	4	.85	1.60	1.20	2.25	1.50	2.90
⅝	5	.90	1.75	1.25	2.35	1.65	3.25
¾	6	1.10	2.00	1.50	2.85	1.95	3.70
⅞	7	1.30	2.40	1.70	3.35	2.25	4.30
1	8	1.65	2.85	2.25	4.15	2.75	5.05
Galvanized.							
⅜	3½	.90	1.65	.....	.....	1.70	3.25
½	4	1.00	1.80	1.35	2.45	1.80	3.40
⅝	5	1.10	2.05	1.45	2.65	2.05	3.90
¾	6	1.35	2.45	1.75	3.30	2.45	4.55
⅞	7	1.75	3.15	2.15	4.10	2.95	5.50
1	8	2.35	3.85	2.95	5.15	3.65	6.50

UPPER. LOWER.

Ice Blocks.

FIG. 1804.

FIG. 1805.

Sheave, Inches.	Diameter Rope, Inches.	Price, Upper Block, Each.	Price, Lower Block, Each.
8 x 1⅝ x ⅝	1	5.00	5.75
10 x 1⅞ x ¾	1⅛	6.00	6.75
12 x 2 x ⅞	1¼	7.50	8.25

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEEL TACKLE BLOCKS.

Wide Mortise.

FIG. 1806.

FIG. 1807.

FIG. 1808.

Extra Heavy, Purchase Blocks with Hook, Ring or Shackle.

Dimensions, Inches.			Plain Bushed.			Self Lubricating, Graphite Bronze Bushing.		
Sheaves.	Diameter, Rope.	Shell.	Price, Single, Each.	Price, Double Each.	Price, Triple, Each.	Price, Single, Each.	Price, Double, Each.	Price, Triple, Each.
7½x2 x ⅞	1½	12	7.00	10.50	15.00	8.75	14.50	20.00
8½x2⅛x1	1¾	14	9.00	15.00	20.00	10.75	18.50	25.50
10 x2⅜x1¼	2	16	13.00	21.00	32.00	15.00	25.00	38.00

Extra Heavy, with Lashing Shackles and Outside Straps.

Dimensions, Inches.			Plain Bushed.			Self Lubricating, Graphite Bronze Bushing.		
Sheaves.	Diameter, Rope.	Shell.	Price, Single, Each.	Price, Double Each.	Price, Triple, Each.	Price, Single, Each.	Price, Double, Each.	Price, Triple, Each.
10x2⅜x1½	2½	17	40.00	51.00	66.00	43.00	61.00	76.00
11x3¼x1½	2½	18	44.00	66.00	80.00	48.00	72.00	90.00
13x4 x1½	3	20	52.00	70.00	95.00	58.00	83.00	115.00
15x4½x1½	3½	22	62.00	90.00	110.00	70.00	106.00	134.00
17x5 x1¾	4	24	75.00	110.00	140.00	85.00	130.00	170.00

Derrick and Hoisting Blocks, for Wire Rope.

Dimensions, Inches.			Self Lubricating, Graphite Bronze Bushing.		
Sheaves.	Diameter, Rope,	Shell.	Price, Single, Each.	Price, Double, Each.	Price, Triple, Each.
9½x1½x⅜	⅜ and ½	12	6.50	12.00	18.00
10½x1⅝x½	½ and ⅝	13	8.00	15.00	22.00
12 x2 x1	⅝ and ¾	16	10.00	19.00	27.00
14 x2⅛x1	⅞ and 1	18	15.00	24.00	36.00

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STEEL TACKLE BLOCKS FOR WIRE ROPE.

Gin Blocks, with Stiff Swivel and Graphite Bronze Bushings.

FIG. 1809.

FIG. 1810.

Sheaves...inches	10x1¾x1	12x1¾x1	14x2x1	16x2x1	18x2⅜x1⅛	20x2½x1¼
Diameter Rope....inches	½	⅝	¾	⅞	1	1⅛
Price, Single.....each	11.00	12.50	15.00	18.00	23.00	28.00
Price, Double.....each	18.00	20.00	23.00	27.00	32.00	38.00
Price, Triple.....each	28.00	31.00	36.00	46 00	53.00	65.00

HEAVY DUTY TACKLE BLOCKS.

SWIVEL HOOK.

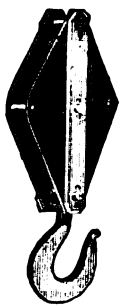

FIG. 1811.

DOUBLE SHACKLE.

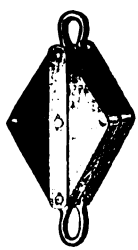

FIG. 1812.

SWIVEL HOOK AND SHACKLE.

FIG. 1813.

Diameter of Sheaves.....inches	12	14	16
Price, Single Block, Swivel Hook.....each	11.00	15.00	20.00
Price, Double Block, Swivel Hook..... each	15.00	20.00	25.00
Price, Single Block, Double Shackle.....each	11.00	15.00	20.00
Price. Double Block, Double Shackle.....each	15.00	20.00	25.00
Price, Single Block, Swivel Hook and Shackle..ea.	13.50	18.00	24.00
Price, Double Block, Swivel Hook and Shackle,ea.	17.50	23.00	30.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SNATCH BLOCKS.

WOOD SHELL.

FIG. 1814.

STEEL.

FIG. 1815.

CLEVELAND.

FIG. 1816.

Wood Shell, with Drop Link.

Sheaves, Inches.	Diameter, Rope, Inches.	Shell, Inches.	Price, Plain Bushed, Each.	Price, Roller Bushed, Each.	Price, Bronze Bushed, Each	Extra for Galvanized Straps, Each.
3 x 1⅛ x ½	⅞	6	4.00	4.65	5.25	.20
3½ x 1½ x ⅝	⅞	7	4.75	5.50	6.00	.25
4½ x 1⅜ x ⅝	1	8	5.75	6.60	7.25	.35
5 x 1⅜ x ⅝	1⅛	9	6.75	7.75	8.50	.40
5¾ x 1⅞ x ¾	1¼	10	8.50	10.00	11.00	.65
6¾ x 2⅛ x ¾	1½	12	10.00	11.50	13.00	.90
8 x 2½ x ⅞	1¾	14	13.00	15.00	16.50	1.20
9 x 2⅝ x 1	2	16	17.00	20.00	22.00	....
10 x 3 x 1	2¼	18	25.00	28.50	31.00	....
11 x 3½ x 1¼	2½	20	38.00	43.00	46.00	....
11¾ x 4¼ x 1½	3	22	55.00	63.00	68.00	....
12½ x 4½ x 1½	3½	24	70.00	78.00	86.00	....

Steel, Automatic Lock.

Sheaves, Inches.	Diameter of Rope, Inches.	Length of Strap, Inches.	Price, Plain Bushed, Each.	Price, Bronze Bushed, Each.
3½ x 1¼ x ½	¾ and ⅞	7	4.75	5.50
4 x 1½ x ⅝	1 and 1⅛	8	5.75	7.00
5½ x 1⅞ x ⅞	1¼ and 1⅜	10	8.50	10.00
7 x 2 x 1	1½ and 1⅝	12	10.00	11.50
8 x 2½ x 1⅝	1¾ and 1⅞	14	13.00	15.00
9 x 2½ x 1¼	2 and 2¼	16	17.00	20.00

Cleveland Automatic.

Sheaves, Inches.	Diameter of Rope, Inches.	Shell, Inches.	Price, Plain Bushed, Each.	Price, Bronze Bushed or Ball Bearing, Each.
3½ x 1¼	¾ to ⅞	7	4.75	5.50
4 x 1½	1 to 1⅛	8	5.75	7.00
5½ x 1⅞	1¼ to 1⅜	10	8.50	10.00
7 x 2	1½ to 1⅝	12	10.00	11.50
8 x 2½	1¾ to 1⅞	14	13.00	15.00
9 x 2½	2 to 2¼	16	17.00	20.00

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STEEL SNATCH BLOCKS.

LOCK.

FIG. 1817.

EXTRA HEAVY, AUTOMATIC LOCK.

FIG. 1818.

Lock for Wire Rope.

Sheaves, Inches.	Diameter Rope, Inches.	Price, Bronze Bushed, Each,
8x1⅝x ¾	⅜	15.00
10x1¾x1	½	18.00
12x1¾x1	⅝	21.00
14x2 x1	¾	24.00
16x2 x1	⅞	30.00
18x2⅜x1⅛	1	40.00
20x2½x1¼	1⅛	52.00
22x2⅝x1¼	1¼	60.00

Extra Heavy Automatic Lock.

Sheaves.	Diameter, Rope, Inches.	Length of Strap, Inches.	Price, Plain Bushed, Each.	Price, Bronze Bushed, Each.
11x3¼x1½	2½	18	38.00	45.00
13x4 x1½	3	20	55.00	62.00
15x4½x1½	3½	22	70.00	80.00
17x5 x1⅜	4	24	90.00	100.00

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THE W. M. PATTISON SUPPLY CO. 641 CLEVELAND

HOISTS.

AUTOMATIC ADJUSTABLE ROPE HOIST.

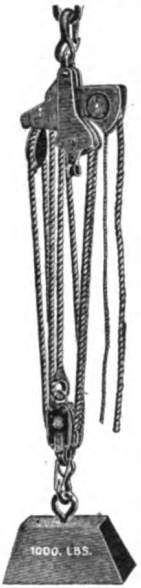

FIG. 1819.

HARRINGTON SCREW HOIST.

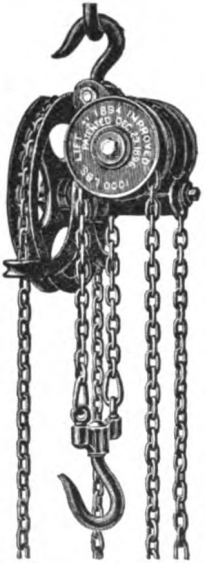

FIG. 1820.

HARRINGTON SPUR GEARED HOIST.

FIG. 1821.

Automatic Adjustable Rope Hoists.

Capacity..... pounds	600	800	1500	2000	2500	3000	3500	5000
Price..... each	2.00	3.00	5.50	7.00	8.50	10.00	12.00	14.00
Diameter of Rope.....inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$
One Man can Hoist.....pounds	250	300	350	400	450	600	700	850
Weight per Set.....pounds	$1\frac{3}{8}$	$4\frac{1}{8}$	$6\frac{1}{2}$	11	17	10	20	28

Prices do not include rope.

Harrington Screw and Spur Geared Hoists.

Capacity.....tons	$\frac{1}{4}$	$\frac{1}{2}$	1	$1\frac{1}{2}$	2	3	4	5	6	8	10
Price, Screw Hoist..each	22.50	25.00	30.00	40.00	50.00	75.00	95.00	140.00	180.00	210.00	275.00
Price, Geared Hoist each	.....	35.00	45.00	60.00	70.00	90.00	110.00	140.00	165.00	200.00	240.00
Price, Extra Lift..per ft	1.00	1.20	1.50	1.75	2.00	2.20	2.40	3.00	3.75	4.00	4.25
Lift.....feet	8	8	8	8	9	10	10	12	12	12	12
Weight, Screw...pounds	41	68	75	106	160	247	325	483	555	735	785
Weight, Geared..pounds	.....	80	108	147	186	236	286	326	454	547	560

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

HOISTS.

WESTON DIFFERENTIAL.

FIG. 1822. **Weston Differential Hoists.**

Capacity, Tons.	Price, Each.	Price, Extra, Hoist, Per Foot.	Regular Hoist, Feet.	Weight, Pounds.
⅛	18.00	2.80	5	11
¼	18.00	2.80	6	22
½	21.00	2.80	7	30
1	28.00	3.00	8	51
1½	36.00	3.20	8½	81
2	45.00	3.40	9	122
3	60.00	4.00	9½	180

YALE AND TOWNE DUPLEX SCREW GEARED.

FIG. 1823.

Yale and Towne Duplex Screw Geared Hoists.

Capacity, Tons.	Price, Each.	Price, Extra Hoist, Per Foot.	Regular Hoist, Feet.	REACH. Feet,	REACH. Inches.	Minimum Distance Between Hooks, Inches.	CHAIN PULL. To Lift Full Load, Pounds.	CHAIN PULL. Chain Handled to Lift Load One Ft., Feet.	Weight, Pounds.
½	25.00	1.20	8	9	1	13	68	40	43
1	30.00	1.50	8	9	4	16	87	59	57
1½	40.00	1.75	8	9	7	19	94	80	76
2	50.00	2.00	9	9	9	21	115	93	104
3	75.00	2.20	10	12	1	25	132	126	200
4	95.00	2.40	10	12	5	29	142	155	225
5	140.00	3.00	12	14	7	31	145	195	340
6	180.00	3.75	12	14	9	33	145	252	360
8	210.00	4.00	12	15	0	36	160	310	390
10	275.00	4.25	12	15	9	45	160	390	570

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HOISTS.

Yale and Towne, Triplex, Spur Geared.

FIG. 1824.

FIG. 1825.

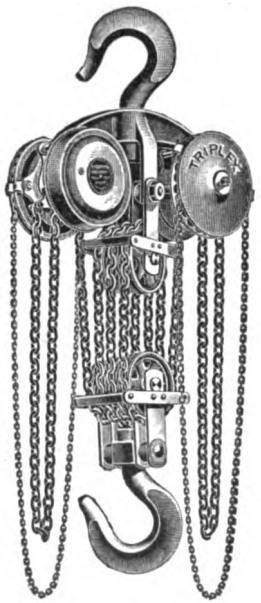

FIG. 1826.

Capacity, Tons.	Price, Each.	Price, Extra Hoist, Per Foot.	Regular Hoist, Feet.	Reach. Feet.	Reach. Inches.	Minimum Distance Between Hooks, Inches.	CHAIN PULL. To Lift Full Load, Pounds.	CHAIN PULL. Chain Handled to Lift Load One Foot, Feet.	Weight, Pounds.
½	35.00	.90	8	9	3	15	62	21	51
1	45.00	.95	8	9	5	17	82	31	89
1½	60.00	1.00	8	9	7½	19½	110	35	133
2	70.00	1.05	9	11	0	24	120	42	203
3	90.00	1.50	10	12	8	32	114	69	206
4	110.00	1.60	10	13	1	37	124	84	307
5	140.00	2.15	12	15	9	45	110	126	397
6	165.00	2.15	12	15	10	46	130	126	417
8	200.00	2.70	12	16	3	51	135	168	505
10	240.00	3.25	12	16	9	57	140	210	622
12	300.00	4.30	12	16	9	57	260	126	800
16	360.00	5.40	12	17	1	61	270	168	1000
20	425.00	6.50	12	18	5	77	280	210	1150

A special gearing is made for ¼ and 1 ton sizes. This handles light load at double speed, but requires double the chain pull. The ¼ ton size in the special gearing is the same in dimensions and price as the regular ½ ton Triplex Block.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

HOISTS.

DIFFERENTIAL, WITH AUTOMATIC BRAKE.

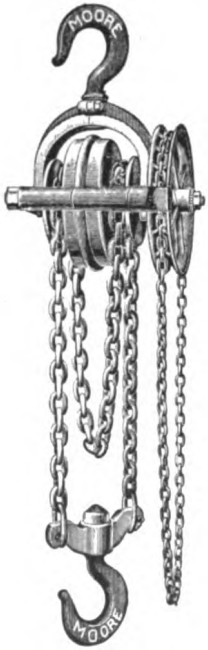

FIG. 1827.

HAND, WITH LOCK BRAKE.

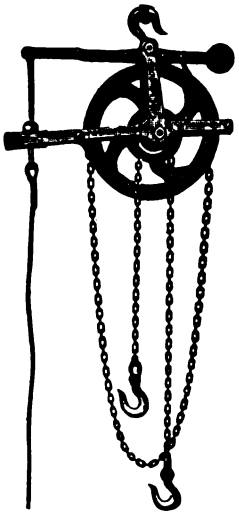

FIG. 1828.

Differential Hoists with Automatic Brake.

Capacity, Tons.	Price, Complete With Chain, Each.	Price Extra Main Chain, Per Foot.	Price, Extra Hand Chain, Per Foot.	Height of Lift, Feet.	Shortest Distance Between Hooks, In.	Chain Overhaul'd to Raise 1 Foot, Feet.	Weight, Pounds.
½	25.00	.40	.25	7	16	38	39
1	30.00	.44	.25	8	20	58	73
1½	40.00	.48	.25	8½	21	59	90
2	50.00	.52	.25	9	23	65	128
3	70.00	.60	.25	10	29	108	195
4	95.00	.70	.25	11	32	120	250
5	125.00	.80	.25	12	36	166	353
6	150.00	.80	.25	12	37	168	400
8	200.00	1.25	.25	12	41	240	580
10	250.00	1.25	.25	12	41	258	625
15	350.00	1.50	.25	12	45	366	780

Hand Hoists with Lock Brake.

Capacity, Pounds.	Price, Complete, Each.	Price, Extra Lift Chain, Per Foot.	Price, Extra Hand Chain, Per Foot.	Height of Lift, Feet.	Weight, Pounds.
600	25.00	.44	.40	11	72
1200	35.00	.44	.40	11	170

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 645

AIR HOISTS.

TYPE 20; LARGE, WITH SPECIAL VALVE AND AUTOMATIC ATTACHMENTS.

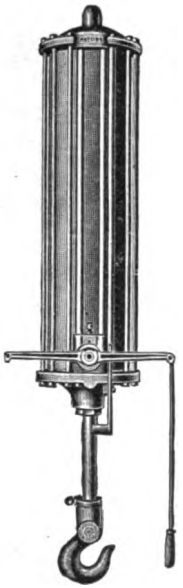

FIG. 1829.

MOTOR HOIST.

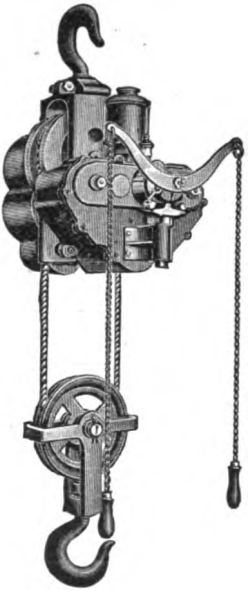

FIG. 1830.

Tpye 20, with Special Valve.

Diameter of Cylinder, Inches.	APPROXIMATE LIFTING CAPACITY AT VARIOUS AIR PRESSURES, TONS.			Standard Lift, Feet.	Price, Each.
	60 Pounds.	80 Pounds.	100 Pounds.		
4	$\frac{1}{8}$	$\frac{3}{8}$	$\frac{5}{8}$	4	.....
6	$\frac{1}{4}$	1	$1\frac{1}{4}$	4	.....
8	$1\frac{1}{4}$	$1\frac{3}{4}$	$2\frac{1}{4}$	4	.....
10	2	$2\frac{3}{4}$	$3\frac{1}{2}$	4	.....
12	3	4	5	4	.....
14	4	$5\frac{1}{2}$	7	4	.....
16	$5\frac{3}{4}$	7	9	4	.....
20	8	11	14	4	.....
24	12	16	20	4	.....

Motor Hoists.

Number.	Capacity, Tons.	Lift, Feet.	Distance Between Hooks, Inches.	Weight, Pounds.	Price, Each.
1	$1\frac{1}{2}$	10	30	160	.....
2	$2\frac{1}{2}$	10	37	230	.....
4	$4\frac{1}{2}$	10	40	400	.....
6	$6\frac{1}{2}$	10	.....	600	.....
8	$8\frac{1}{2}$	10	.....	720	.....
10	$10\frac{1}{2}$	10	.....	800	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

YOKED TROLLEYS.

Forged Frame, Four Wheels, Steel Roller Bushed, Adjustable to Any Size I Beam.

PLAIN YOKE.

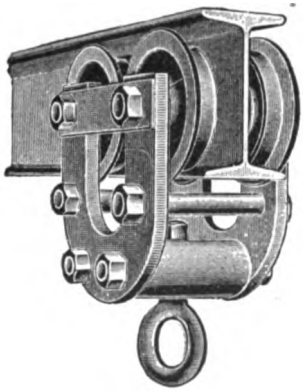

FIG. 1831.

GEARED YOKE.

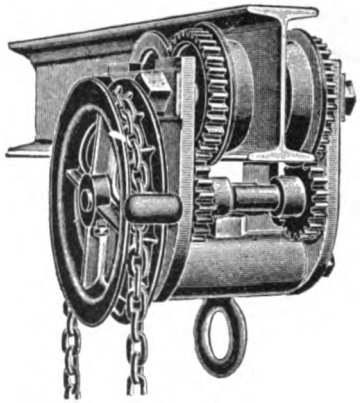

FIG. 1832.

Plain Yoke Trolleys.

Number.	Capacity, Tons.	Tread Diameter of Wheels, Inches.	Price, Each.
2	1	5	21.00
3	1½	5	22.50
4	2	5	24.00
6	3	5½	28.00
8	4	6	32.00
10	5	6	36.00
12	6	8	43.00
16	8	9	51.00
20	10	9	61.00

Geared Yoke Trolleys.

Number.	Capacity, Tons.	Tread Diameter of Wheels, Inches.	Price, Each.
2	1	5	32.00
3	1½	5	34.00
4	2	5	36.00
6	3	5½	43.00
8	4	6	48.00
10	5	6	53.00
12	6	8	60.00
16	8	9	70.00
20	10	9	80.00

In ordering please state size and weight of I Beam for which Trolley is intended.

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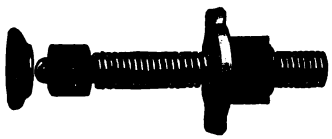

FIG. 1833.

FIG. 1834.

Diameter of Screw, Inches.	Height Over All, Inches.	Price, Each.	Diameter of Screw, Inches.	Height Over All, Inches.	Price, Each.	Diameter of Screw, Inches.	Height Over All, Inches.	Price, Each.
1¼	8	2.60	2¼	12	7.50	2¾	36	14.90
1¼	10	2.80	2¼	14	7.90	2¾	38	15.50
1¼	12	3.00	2¼	16	8.30	2¾	40	16.00
1¼	14	3.20	2¼	18	8.80	2¾	42	16.50
1½	10	3.50	2½	20	9.30	2¾	44	17.10
1½	12	3.75	2½	22	9.80	2¾	46	17.60
1½	14	4.00	2½	24	10.30	2¾	48	18.10
1½	16	4.25	2½	26	10.70	2¾	50	18.60
1½	18	4.50	2½	28	11.10	2¾	52	19.10
1¾	12	4.80	2¾	30	11.50	2¾	54	19.70
1¾	14	5.10	2¾	32	11.90	2¾	56	20.30
1¾	16	5.40	2¾	34	12.30	2¾	58	20.80
1¾	18	5.70	2¾	36	12.70	2¾	60	21.30
1¾	20	6.00	2¾	38	13.20	3	24	19.20
2	12	6.00	2¾	40	13.60	3	26	20.00
2	14	6.40	2¾	42	14.10	3	28	20.80
2	16	6.80	2¾	44	14.60	3	30	21.60
2	18	7.20	2¾	46	15.00	3	32	22.40
2	20	7.60	2¾	48	15.40	3	34	23.20
2	22	8.00	2¾	50	16.00	3	36	24.00
2	24	8.40	2¾	12	8.50	3	38	24.80
2	26	8.80	2¾	14	9.00	3	40	25.60
2	28	9.20	2¾	16	9.60	3	42	26.40
2	30	9.60	2¾	18	10.20	3	44	27.20
2	32	10.00	2¾	20	10.80	3	46	28.00
2	34	10.40	2¾	22	11.30	3	48	28.80
2	36	10.80	2¾	24	11.90	3	50	29.60
2	38	11.20	2¾	26	12.40	3	52	30.40
2	40	11.60	2¾	28	12.90	3	54	31.20
.....	.....	.....	2¾	30	13.40	3	56	32.00
.....	.....	.....	2¾	32	13.90	3	58	32.80
.....	.....	.....	2¾	34	14.40	3	60	33.60

Capacities same as Bell Base Jack Screws of same diameter and length; see page 648.

Nuts and Plates of any shape or form made to order.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

JACK SCREWS.

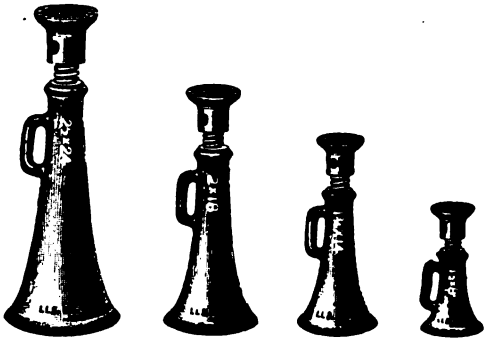

FIG. 1835. FIG. 1836. FIG. 1837. FIG. 1838.

Capacity, Tons.	Diameter of Screw.	Price, Each.	Height of Stand, Inches.	Height Over All, Inches.	Capacity, Tons.	Diameter of Screw, Inches.	Price, Each.	Height of Stand, Inches.	Height Over All, Inches.
10	1¼	2.90	4	6¾	24	2¼	7.00	6	10
10	1¼	3.10	6	8¾	24	2¼	7.50	8	12
10	1¼	3.40	8	10¾	24	2¼	8.25	10	14
10	1¼	3.80	10	12¾	24	2¼	9.00	12	16
10	1¼	4.20	12	14¾	24	2¼	10.00	14	18
10	1¼	4.60	14	16¾	24	2¼	11.00	16	20
12	1½	3.25	4	7	24	2¼	12.00	18	22
12	1½	3.75	6	9	24	2¼	13.25	20	24
12	1½	4.25	8	11	24	2¼	14.50	22	26
12	1½	4.75	10	13	24	2¼	15.75	24	28
12	1½	5.25	12	15	28	2½	7.75	6	10½
12	1½	6.00	14	17	28	2½	8.75	8	12½
12	1½	6.75	16	19	28	2½	9.75	10	14½
16	1¾	4.25	5	8½	28	2½	10.75	12	16½
16	1¾	4.50	6	9½	28	2½	12.00	14	18½
16	1¾	5.00	8	11½	28	2½	13.25	16	20½
16	1¾	5.75	10	13½	28	2½	14.50	18	22½
16	1¾	6.25	12	15½	28	2½	15.75	20	24½
16	1¾	6.75	14	17½	28	2½	17.00	22	26½
16	1¾	7.50	16	19½	28	2½	18.25	24	28½
16	1¾	8.50	18	21½	28	2½	22.00	28	32½
20	2	5.00	5	9	28	2½	26.00	32	36½
20	2	5.25	6	10	36	3	19.50	14	18½
20	2	6.00	8	12	36	3	20.75	16	20½
20	2	6.75	10	14	36	3	22.00	18	22½
20	2	7.50	12	16	36	3	23.25	20	24½
20	2	8.25	14	18	36	3	24.50	22	26½
20	2	9.25	16	20	36	3	25.75	24	28½
20	2	10.25	18	22	36	3	30.00	30	34½
20	2	11.50	20	24	.....	.....	.....	.....	.....
20	2	12.50	22	26	.....	.....	.....	.....	.....
20	2	13.50	24	28	.....	.....	.....	.....	.....

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STONE YARD JACKS.

WINDLASS.

FIG. 1839.

LEVER.

FIG. 1840.

Windlass Jacks.

Capacity, Tons.	Height, Inches.	Price, Each.	Weight, Pounds.	Capacity, Tons.	Height, Inches.	Price, Each.	Weight, Pounds.
3	36½	50.00	95	12	40	120.00	170
4	37	55.00	100	15	41	140.00	185
5	37½	62.00	110	18	41	150.00	200
6	38	70.00	125	20	41	162.50	225
7	38½	77.50	135	25	41	175.00	250
8	39	84.50	145	30	42	200.00	285
10	39½	110.00	160	.....	.....	.....	.....

Lever Jacks.

Number.	Height When Down, Inches.	Rise of Bar, Inches.	Price, Each.	Lifting Capacity, Tons.	Size of Bar, Inches.	Weight, Pounds.
2	19	10	10.00	2	1¼	27
4	23½	14	16.00	4	1½	42
10	28½	15½	23.00	10	1¾	77
6	28	14¼	26.00	15	2	94
7	37½	23	30.00	15	2	118
8	29	14	30.00	12	2	90

FIG. 1841.

Mining Jacks.

Height When Down.....inches	44
Rise of Bar.....inches	35
Price.....each	20.00
Lifting Capacity.....tons	4
Size of Bar.....inches	1½
Weight.....pounds	60

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THE W. M. PATTISON SUPPLY CO. 650 CLEVELAND

JACKS.

CHAPMAN.

FIG. 1842.

SECTIONAL.

FIG. 1843

RAPID MOVING RATCHET JACK.

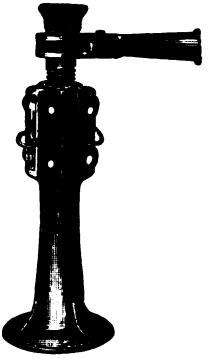

FIG. 1844.

Chapman Jacks.

Number.	Diameter of Screw, Inches.	Safe Rise, With Load, Inches.	Price, Each.	Height When Down, Inches.	Height Over All, Inches.	Number.	Diameter of Screw, Inches.	Safe Rise With Load, Inches.	Price, Each.	Height When Down, Inches.	Height Over All, Inches.
4	1	1½	1.50	4	5½	16	2½	9	7.50	16	25
6	1½	2½	2.25	6¾	9¼	20	2½	12	10.50	20	32
8	1½	3½	3.00	8	11½	24	2½	16	13.50	24	40
10	1½	4½	3.75	10	14½	28	2½	20	16.50	28	48
12	1¾	6	4.50	12	18	30	2½	22	18.00	30	52
14	2	7	6.00	14	21	36	2½	28	24.00	36	64

Rapid Moving Ratchet Jacks.

Number.	Height When Down, Inches.	Rise of Screw, Inches.	Price, With Six Way Head, Inches	Price, With Forked Lever Ratchet, Each.	Price, With Spring Ratchet, Each.	Price, Ground Lift Bar Extra, Each.	Capacity, Tons.	Diameter of Screw, Inches.	Weight, Pounds.
24	22	11	28.00	30.00	35.00	.....	8	2	48
25	27	15	42.00	.....	50.00	10.00	25	2½	90
26	29	14	78.00	.....	.....	12.00	50	3	164
27	36½	24	57.00	.....	65.00	.....	25	2½	137

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LEVER JACKS.

FIG. 1845.
No. 3.

FIG. 1846.
Nos. 1A, 2A, 4, 4A.

FIG. 1847.
Nos. 10, 10A.
COMPOUND.

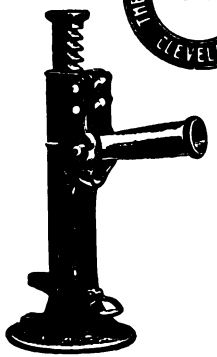

FIG. 1848.
Nos. 6, 7.
COMPOUND WITH TRIP.

WITH TRIP.

FIG. 1849.
Nos. 4B, 4C, 11.

FIG. 1850.
No. 8.

FIG. 1851.
No. 9.

Number.	Height With Bar Down, Inches.	Rise of Bar, Inches.	Price, Each.	Lifting Capacity, Tons.	Size of Bar, Inches.	Weight, Pounds.
1 A	16	8½	10.00	2	1¼ x 1¼	25
2 A	18½	10	10.00	2	1¼ x 1¼	27
3	11½	4	10.00	4	1½ x 1½	29
4	22½	14	16.00	4	1½ x 1½	46
4 A	18½	10½	16.00	4	1½ x 1½	38
4 B	22½	12	16.00	4	1½ x 1½	45
4 C	19	9	16.00	4	1½ x 1½	39
6	26½	14	26.00	15	2 x 2	94
7	35	25½	30.00	15	2 x 2	113½
8	29	14	30.00	12	2 Round	100
9	29	14	30.00	12	2 Round	100
10	27	16	23.00	10	1¾ x 1¾	76
10 A	22½	11½	23.00	10	1¾ x 1¾	68
11	27	16	23.00	10	1¾ x 1¾	81

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BARRETT JACKS.

TRIP JACK.

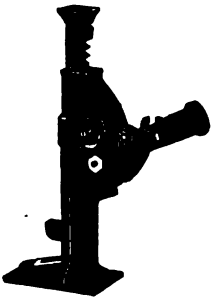

FIG. 1652.

No. 1.

AUTOMATIC LOWERING JACK.

FIG. 1653.

No. 2.

AUTOMATIC LOWERING JACK.

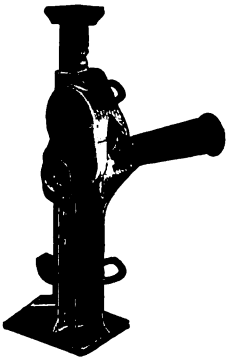

FIG. 1654.

No. 5.

Number.	Height With Bar Down, Inches.	Raise of Bar, Inches.	Price, Each.	Lifting Capacity, Tons.	Size of Bar, Inches.	Weight, Pounds.
‡ ‡ 00	12	6	8.00	1	$\frac{3}{4}$ x $\frac{13}{16}$	8½
* 1	24	13½	18.00	10	1$\frac{1}{2}$ x 1$\frac{1}{4}$	62
* 2	21	10	25.00	10	1$\frac{5}{8}$ x 1$\frac{1}{2}$	65
† 3	26½	15	30.00	12	1$\frac{1}{2}$ x 1$\frac{7}{8}$	85
† 4	22	10	35.00	22	1$\frac{15}{16}$ x 2$\frac{1}{16}$	100
† 5	28	15	40.00	28	1$\frac{15}{16}$ x 2$\frac{1}{16}$	115
* 6	31	19	32.00	15	1$\frac{7}{8}$ x 1$\frac{5}{8}$	105
† 8	11	5	22.00	10	1$\frac{5}{8}$ x 1$\frac{1}{2}$	48
‡ 10	24½	14	25.00	10	1$\frac{1}{2}$ x 1$\frac{1}{2}$	66
* 12	17¾	8	17.00	10	1$\frac{1}{2}$ x 1$\frac{1}{2}$	50
* * 17	24	13¾	18.00	10	1$\frac{1}{2}$ x 1$\frac{1}{2}$	63
† † 18	21	10	25.00	10	1$\frac{1}{2}$ x 1$\frac{5}{8}$	68
† † 19	28	17½	35.00	15	1$\frac{3}{4}$ x 1$\frac{7}{8}$	102
* * 20	31	19	32.00	15	1$\frac{5}{8}$ x 1$\frac{3}{4}$	106
† 32	20½	10	25.00	10	1$\frac{5}{8}$ x 1$\frac{1}{2}$	70
† 50	16	8	16.00	5	1$\frac{1}{4}$ x 1$\frac{1}{4}$	33

* Double Acting Trip Jacks. * * Single Acting Trip Jacks.

† Double Acting Automatic Lowering Jacks. † † Single Acting Automatic Lowering Jacks.

‡ Automatic Lowering and Trip Jack combined.

‡ ‡ Automatic Double Acting Automobile Jack.

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GEARED JACKS.

FIG. 1855.
No. 180.

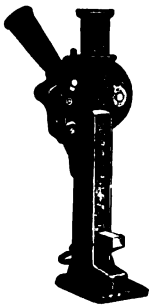

FIG. 1856.
Nos. 183, 184.

FIG. 1857.
Nos. 194, 195.

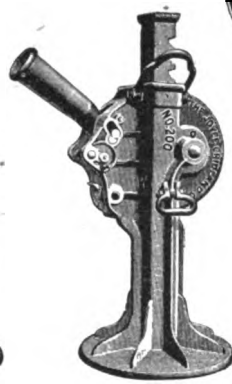

FIG. 1858.
Nos. 200, 201, 202.

Number.	Height With Bar Down, Inches.	Rise of Bar, Inches.	Price, Each.	Lifting Capacity, Tons.	Rise of Bar per Stroke of Lever, Inches.	Size of Bar, Inches.	Weight, Pounds.
180	12	5	35.00	15		2¼ x 2	90
183	25	15	40.00	15		2¼ x 2	120
184	25	15	40.00	15		2¼ x 2	120
194	27	18	50.00	20		2½ x 2¼	150
195	33	22½	55.00	20		2½ x 2¼	183
199	22	12	75.00	30		3 x 2½	210
200	27	17	75.00	30		3 x 2½	237
201	36	26	85.00	30		3 x 2½	270
202	31	19½	85.00	30		3 x 2½	250

FIG. 1859.

TELESCOPE JACKS.

Number.	Height When Down, Inches.	Rise of Screw, Inches.	Price, Each.	Price, With Spring Ratchet, Each.	Lifting Capacity, Tons.	Weight, Pounds.
44	8	8	12.00	17.00	6	18
45	12	12	15.00	23.00	8	32
47	18	18	20.00	28.00	10	65
50	16	16	53.00	65.00	25	140

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NORTON CONE AND BALL BEARING RATCHET JACKS.

50 TON BRIDGE JACK.

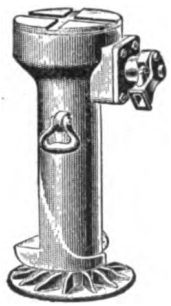

FIG. 1860.

STYLE G, WITH FOOT LIFT.

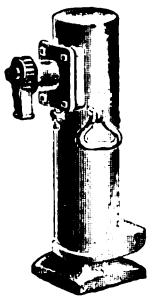

FIG. 1861.

STYLE G, WITH HOOK.

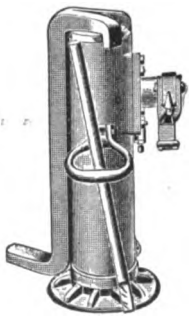

FIG. 1862.

SECTIONAL, SHOWING BALL BEARING RATCHET SCREW JACK.

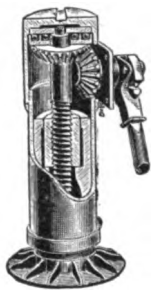

FIG. 1863.

Style.	Capacity, Tons.	Raise, Inches.	Height, Inches.	Price, Each.	Price, Hook, Extra, Each.	Size of Base, Inches.	Size of Head, Inches.	Height of Foot From Ground, Inches.	Weight, Pounds.
* N J	10	7	14	22.00	.....	6 x10	.....	3	65
* N J	10	10	20	24.00	.....	6 x 8	.....	3	74
* N J	10	10	20	24.00	.....	8	.....	3	74
G	15	12	22	25.00	5.00	10	.....	.....	95
G	15	12	22	28.00	.....	10	.....	.....	105
R	15	9	20	60.00	5.00	12	.....	.....	80
B	15	10	22	60.00	6.00	10	.....	.....	80
* F	15	10	24	60.00	.....	10	.....	.....	127
M	15	13	26	70.00	6.00	6 x 6	.....	.....	90
A	15	13	26	70.00	6.00	10	.....	.....	92
N A	25	9	20	80.00	6.00	10	.....	.....	106
N A	25	11	24	85.00	6.00	10	.....	.....	149
N A	25	13	26	90.00	6.00	10	.....	.....	164
C	35	13	26	125.00	8.00	12	.....	.....	182
C	35	18	31	135.00	8.00	12	.....	.....	196
* 1	15	10	22	60.00	.....	8 x 9	5½	.....	110
* 2	25	10	22	90.00	.....	8 x 9	5½	.....	136
* 3	25	13	26	96.00	.....	8 x 9	5½	.....	157
* 4	35	10	22	130.00	.....	10½x 8	6½	.....	190
* 5	50	13	27	150.00	.....	14	10½	.....	292
* 6	60	12	26	175.00	.....	14	10½	.....	323
* 7	70	12	26	200.00	.....	14	10½	.....	323

* With Foot or Ground Lift.

Styles N J and G, are Cone Bearing, others Ball Bearing.

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DUDGEON HYDRAULIC JACKS.

PLAIN JACK.

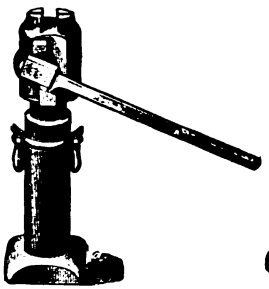

FIG. 1664.

BASE JACK.

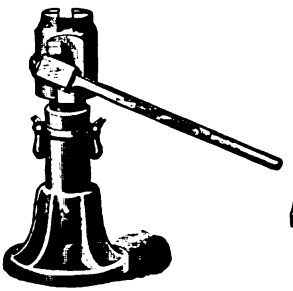

FIG. 1665.

CLAW OR GROUND LIFTING JACK.

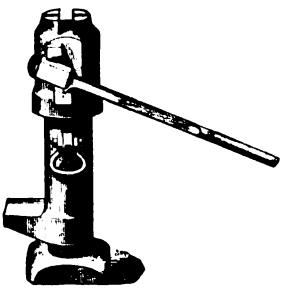

FIG. 1666.

Capacity, Tons.	Raise, Inches.	PLAIN JACKS.			BASE JACKS.			CLAW OR GROUND LIFTING JACKS.		
		Height, Inches.	Price, Each.	Weight, Pounds.	Height, Inches.	Price, Each.	Weight, Pounds.	Height, Inches.	Price, Each.	Weight, Pounds.
4	12	24	60.00	46	*23	60.00	61	24	60.00	64
4	24	37	65.00	60	*37	65.00	80	37	65.00	94
7	12	25	70.00	64	*25	80.00	82	25	85.00	90
7	18	32	73.00	72	*31	85.00	100	31	88.00	110
7	24	*38	75.00	80	*38	90.00	120	38	90.00	123
10	12	25	80.00	80	*25	95.00	109	25	100.00	123
10	18	32	95.00	98	*31	110.00	125	32	120.00	144
10	24	39	110.00	110	*39	125.00	145	39	145.00	170
15	12	26	100.00	102	*25	125.00	135	26	150.00	162
15	18	32	125.00	120	*32	150.00	158	32	185.00	189
15	24	39	150.00	140	*39	175.00	176	.....	.....	.....
20	12	26	120.00	127	*26	150.00	169	26	200.00	207
20	18	33	145.00	155	*33	175.00	198	33	240.00	245
20	24	39	170.00	180	*39	200.00	228	.....	.....	.....
30	9	*22	150.00	146	*22	170.00	210	.....	.....	.....
30	12	*26	175.00	194	*26	200.00	259	*26	250.00	310
30	18	*33	210.00	260	*33	235.00	300	.....	.....	.....
40	12	*27	210.00	280	*27	240.00	320	.....	.....	.....
40	18	*34	250.00	320	*33	280.00	360	.....	.....	.....
50	12	.....	.....	.....	*28	260.00	365	.....	.....	.....
50	18	.....	.....	.....	*34	310.00	410	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* Round Base, all others square.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

DUDGEON HORIZONTAL HYDRAULIC JACKS.

ROUND BASE. SQUARE BASE, WITH CLAW. OVAL BASE.

FIG. 1867.

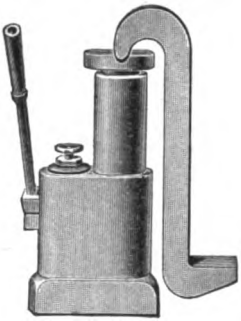

FIG. 1868.

FIG. 1869.

Round and Square Base Hydraulic Jacks.

Capacity, Tons.	Raise, Inches.	Height, Inches.	Price, Round or Square Base, Each.	Price, Squ're Base With Claw, Each.	Size of Round Base, Inches.	Size of Square Base, Inches.	Weight, Round or Square Base, Lbs.
7	12	20	80.00	85.00	11	9 x5½	102
7	18	26	85.00	90.00	11	9 x5½	120
10	12	20	95.00	105.00	12	9½x7	135
10	18	26	110.00	125.00	12	9½x7	166
10	24	32	130.00	150.00	12	9½x7	196
15	12	21	125.00	150.00	12	9½x7	150
15	18	26	150.00	180.00	12	9½x7	187
15	24	32	175.00	215.00	12	9½x7	200
20	12	21	150.00	185.00	13½	11 x8½	197
20	18	27	175.00	215.00	13½	11 x8½	242
20	24	33	200.00	250.00	13½	11 x8½	255

Oval Base Hydraulic Jacks.

Capacity, Tons.	Raise, Inches.	Height, Inches.	Price, Each.	Price, With Claw, Each.	Size of Base, Inches.	Weight, Pounds.
30	12	22	200.00	240.00	12½x 9	234
30	18	28	235.00	285.00	12½x 9	285
40	12	22	240.00	290.00	13½x10	320
40	18	28	280.00	340.00	13½x10	355
50	12	22	260.00	320.00	14 x12	335
50	18	28	310.00	380.00	14 x12	380
60	9	17	250.00	310.00	14 x12	320
60	12	20	275.00	340.00	14 x12	350
60	18	26	350.00	CLAWS FOR THESE SIZES MADE TO ORDER.	14 x12	410
80	9	19	310.00		16 x13	425
80	12	22	335.00		16 x13	450
80	18	28	385.00		16 x13	525
100	9	19	375.00		17 x14½	520
100	12	22	400.00		17 x14½	570
100	18	28	475.00		17 x14½	660
125	9	19	425.00		18 x16	535
125	12	22	450.00		18 x16	585
125	18	28	525.00		18 x16	685
150	12	23	500.00		20 x17½	920
150	18	29	575.00		20 x17½	1160

Larger Sizes, Prices on Application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 657

JOYCE, CRIDLAND HYDRAULIC JACKS.

PLAIN JACK.

FIG. 1870.

BASE JACK.

FIG. 1871.

GROUND LIFTING JACK.

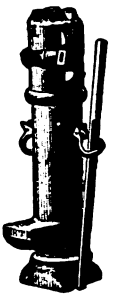

FIG. 1872.

Capacity, Tons.	Raise, Inches.	PLAIN JACKS.			BASE JACKS.			GROUND LIFTING JACKS.		
		Height, Inches.	Price, Each.	Weight, Pounds.	Height, Inches.	Price, Each.	Weight, Pounds.	Height, Inches.	Price, Each.	Weight, Pounds.
4	6	17⅜	38.00	43	.....	.....	.....	.....	.....	.....
4	12	23⅜	42.00	51	23½	50.00	60	23⅜	52.00	64
4	18	29⅜	46.00	59	29⅝	55.00	68	29⅜	58.00	76
4	24	35⅜	50.00	67	35⅝	61.00	74	35⅜	63.00	88
7	6	18¼	39.00	47	.....	.....	.....	.....	.....	.....
7	9	21¼	43.00	51	21	51.00	69	.....	.....	.....
7	12	24¼	45.00	63	24	54.00	75	24¼	56.00	77
7	18	30¼	51.00	75	30	61.00	87	30¼	64.00	95
7	24	36¼	57.00	87	36	68.00	99	36¼	71.00	113
10	6	19¾	43.00	68	19¼	51.00	81	.....	.....	.....
10	9	22¾	47.00	76	22¼	56.00	89	.....	.....	.....
10	12	25¾	50.00	84	25¼	61.00	97	25¾	63.00	115
10	18	31¾	58.00	98	31¼	69.00	112	31¾	72.00	153
10	24	37¾	65.00	114	37¼	78.00	128	37¾	82.00	172
15	12	25⅞	63.00	99	25½	76.00	116	25⅞	79.00	137
15	18	32⅞	75.00	120	32½	90.00	137	32⅞	94.00	165
15	24	38⅞	87.00	140	38½	104.00	157	38⅞	108.00	192
20	12	26¼	79.00	121	25⅝	94.00	135	26¼	99.00	175
20	18	33¼	94.00	147	32⅝	112.00	161	33¼	117.00	197
20	24	39¼	109.00	171	38⅝	130.00	185	39¼	135.00	229
30	9	24¾	102.00	159	24¼	114.00	189	.....	.....	.....
30	12	27¾	106.00	176	27¼	126.00	206	27¾	132.00	230
30	18	33⅝	127.00	215	33⅜	152.00	245	33⅝	158.00	281
30	24	39⅝	148.00	253	39⅜	178.00	283	39⅝	185.00	331
40	9	24⅝	111.00	161	24⅜	132.00	191	.....	.....	.....
40	12	27⅝	124.00	180	27⅜	147.00	210	27⅝	154.00	234
40	18	33⅝	148.00	222	33⅜	178.00	252	33⅝	186.00	288
40	24	39⅝	177.00	264	39⅜	208.00	294	39⅝	216.00	312

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

JOYCE, CRIDLAND HYDRAULIC JACKS.

Outside Pump.

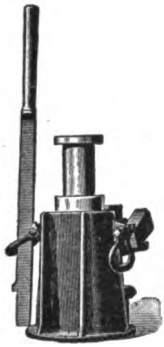

FIG. 1873.

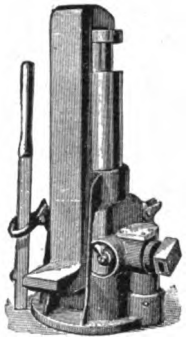

FIG. 1874.

Capacity, Tons.	Raise, Inches.	Height, Inches.	Price, Single Pump, Each.	Price, Double Pump, Each.	Price, Ground Lift Extra. Each.	Weight, Pounds.
10	6	11	51.00	.....	.....	75
10	9	15⅛	56.00	.....	.....	86
10	12	18⅛	61.00	.....	.....	95
10	18	24⅛	69.00	.....	.....	113
10	24	30⅛	78.00	.....	.....	131
15	6	11½	61.00	.....	.....	94
15	9	15⅝	69.00	.....	.....	106
15	12	18⅛	76.00	.....	.....	118
15	18	24⅛	90.00	.....	.....	142
15	24	30⅛	104.00	.....	.....	166
20	6	12⅛	77.00	.....	.....	104
20	9	15⅛	87.00	.....	.....	118
20	12	18⅛	94.00	.....	.....	132
20	18	24⅛	112.00	.....	.....	160
20	24	30⅛	130.00	.....	.....	188
30	6	13¾	102 00	132.00	.....	184
30	9	16¾	114.00	144.00	22.00	204
30	12	19¾	126.00	156.00	26.00	224
30	18	25¾	152.00	182.00	32.00	264
30	24	31¾	178.00	208.00	.....	304
40	6	14⅛	117.00	147.00	.....	200
40	9	17⅛	132.00	162.00	26.00	222
40	12	20⅛	147.00	177.00	26.00	244
40	18	26⅛	178.00	208.00	32.00	288
40	24	32⅛	208.00	238.00	.....	332
60	9	17¾	161.00	191.00	26.00	272
60	12	20¾	175.00	205.00	32.00	298
60	18	26¾	200.00	230.00	34.00	350
80	9	18½	193.00	223.00	.....	357
80	12	21½	208.00	238.00	.....	394
80	18	27½	236.00	266.00	.....	469
100	9	19¼	212.00	252.00	.....	450
100	12	22¼	236.00	276.00	.....	495
100	18	28¼	272.00	312.00	.....	585
150	9	20	344.00	388.00	.....	500
150	12	23	370.00	410.00	.....	550

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 659

WATSON & STILLMAN HYDRAULIC JACKS.

PLAIN JACK.

FIG. 1875.

BASE JACK.

FIG. 1876.

CLAW OR GROUND LIFTING JACK.

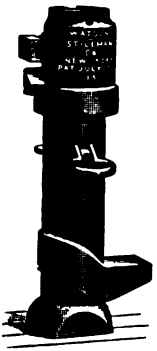

FIG. 1877.

Capacity, Tons.	Raise, Inches.	PLAIN JACKS.			BASE JACKS.			CLAW OR GROUND LIFTING JACKS.		
		Height, Inches.	Price, Each.	Weight, Pounds.	Height, Inches.	Price, Each.	Weight, Pounds.	Height, Inches.	Price, Each.	Weight, Pounds.
4	3	11	40.00	22	*11	45.00	26	.....	.....	.....
4	12	25	50.00	41	25	56.00	54	24	58.00	58
7	3	11	46.00	25	*11	50.00	32	.....	.....	.....
7	12	25	56.00	50	25	64.00	93	25	68.00	86
7	18	31	60.00	72	31	67.00	102	31½	70.00	102
7	24	37	64.00	80	37	70.00	114	38	72.00	120
10	12	25	64.00	75	25	76.00	98	25	80.00	117
10	18	31	72.00	92	31	88.00	110	32	90.00	142
10	22	35	78.00	109	36	96.00	115	.....	.....	.....
10	24	37	80.00	120	38	100.00	120	.....	.....	.....
15	12	25	80.00	100	25½	100.00	140	25½	120.00	153
15	18	32	92.00	118	32	120.00	161	32¾	135.00	178
15	22	.....	.....	.....	36½	135.00	180	.....	.....	.....
15	24	38½	100.00	143	.....	.....	.....	38	160.00	203
20	12	26	96.00	121	26	120.00	156	26	160.00	185
20	18	32½	115.00	155	32	140.00	182	32½	180.00	222
20	22	.....	.....	.....	36	150.00	213	.....	.....	.....
20	24	.....	.....	.....	38	160.00	235	.....	.....	.....
30	9	21½	120.00	160	21½	136.00	180	.....	.....	.....
30	12	26½	140.00	218	26½	160.00	200	27	200.00	318
30	18	33	165.00	258	34	185.00	343	33	240.00	355
30	22	.....	.....	.....	38	210.00	304	.....	.....	.....
40	12	27	160.00	260	27	180.00	245	27	250.00	400
40	18	33½	190.00	300	34	220.00	300	.....	.....	.....

* Square Base.

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WATSON & STILLMAN HYDRAULIC JACKS.

LOW HYDRAULIC JACK.

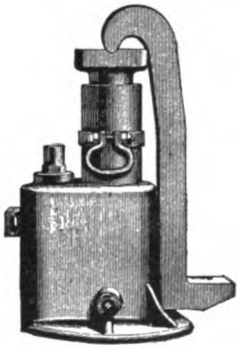

FIG. 1878.

OUTSIDE PUMP, VERTICAL HYDRAULIC JACK.

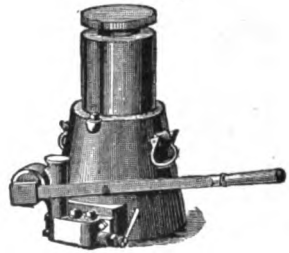

FIG. 1879.

Capacity, Tons.	Raise, Inches.	LOW HYDRAULIC JACKS.					OUTSIDE PUMP, VERTICAL HYDRAULIC JACKS.				
		Height, Inches.	Price, Each.	Price, Claw Extra, Each.	Diameter of Base, Inches.	Weight, Pounds.	Height, Inches.	Price, Each.	Price, Extra Length, Per Inch.	Diameter of Base, Inches.	Weight, Pounds.
10	12	20	80.00	8.00	10	120	.....	.....	.....	.....	.....
15	12	20	100.00	10.00	12	180	.....	.....	.....	.....	.....
15	18	26	120.00	12.00	12	200	.....	.....	.....	.....	.....
15	22	30	140.00	14.00	12	215	.....	.....	.....	.....	.....
20	12	20	120.00	12.00	12	190	.....	.....	.....	.....	.....
20	18	26	150.00	16.00	12	235	.....	.....	.....	.....	.....
20	22	30	165.00	18.00	12	270	.....	.....	.....	.....	.....
30	12	21	150.00	18.00	13	245	.....	.....	.....	.....	.....
30	18	27	175.00	20.00	13	265	.....	.....	.....	.....	.....
30	24	33	210.00	24.00	14	290	.....	.....	.....	.....	.....
45	12	21	175.00	22.00	14	293	.....	.....	.....	.....	.....
45	18	27	225.00	24.00	14	320	.....	.....	.....	.....	.....
60	9	18	185.00	22.00	15	290	17½	200.00	.....	12	250
60	12	21	200.00	24.00	15	360	20½	220.00	5.00	12	348
60	18	.....	.....	.....	.....	.....	26½	260.00	.....	12	400
80	12	22	235.00	26.00	18	400	.....	.....	.....	.....	.....
100	9	18	225.00	26.00	15	550	17½	275.00	.....	13	360
100	12	22	275.00	30.00	20	670	20½	300.00	6.00	13	445
100	18	.....	.....	.....	.....	.....	26½	340.00	.....	13	545
125	12	.....	.....	.....	.....	.....	20½	360.00	7.50	14	600
150	12	.....	.....	.....	.....	.....	20½	425.00	10.00	15	800
200	9	.....	.....	.....	.....	.....	19	450.00	.....	18½	1000
200	12	.....	.....	.....	.....	.....	22	500.00	15.00	18½	1200
200	18	.....	.....	.....	.....	.....	28	575.00	.....	18½	1500

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 661

CHAINS.

SAFETY CHAIN.

FIG. 1880.

Number	00	0	1	2
Price, Brass, Per Box of 12 Yards.....each	1.25	1.50	1.85	2.30
Price, Nickel Plated, Per Box of 12 Yards.....each	1.35	1.60	1.95	2.40
Price, Brass, on Reels of 500 feet.....per 100 feet	3.60	4.30	5.20	6.40
Price, Nickel Plated, on Reels of 500 feet.per 100 feet	3.70	4.50	5.50	6.70

SPECIAL SAFETY CHAIN.

FIG. 1881.

Price, Steel.....per foot	.04
Price, Red Metal.....per foot	.08

SPLIT LINKS.

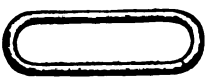

FIG. 1882.

Price, Brass.....per gross	1.75
Price, Nickel Plated.....per gross	2.00

EIGHT HOOKS.

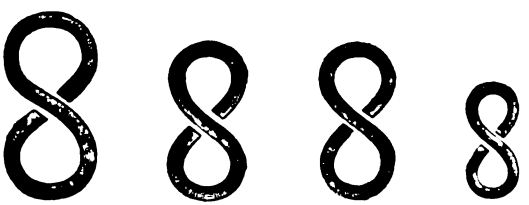

FIG. 1883.

Number	5	3	2	2½
Price, Brass.....per gross	1.10	1.50	1.80	2.00
Price, Nickel Plated.....per gross	1.25	1.65	1.95	2.15

SINGLE JACK CHAIN.

FIG. 1884.

DOUBLE JACK CHAIN.

FIG. 1885.

Number	8	9	10	11	12	13	14
Price, Single, Iron.....per dozen yards	.95	.90	.80	.55	.44	.42	.40
Price, Double, Iron.....per dozen yards	.....	.....	.95	.....	.65	.....	.55
Price, Single, Brass.....per dozen yards	5.25	4.25	3.50	2.55	2.05	1.70	1.35
Price, Double, Brass.....per dozen yards	.....	.....	4.25	.....	3.00	.....	1.90

Number	15	16	18	20	22	24	.....
Price, Single, Iron.....per dozen yards	.35	.30	.28	.26	.25	.25	.....
Price, Double, Iron.....per dozen yards	.....	.38	.33	.....	.....	.....	.....
Price, Single, Brass.....per dozen yards	1.00	.86	.60	.50	.40	.40	.....
Price, Double, Brass.....per dozen yards	.....	1.20	.75	.....	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CHAINS.

BRIGHT TWISTED LINK COIL CHAIN.

FIG. 1886.

BRIGHT CLOSE TWISTED LINK MACHINE CHAIN.

FIG. 1887.

Number	4–0	3–0	2–0	0	1	2	3	4
Price, Coil Chain .....per hundred feet	.....	11.00	10.00	8.80	7.80	7.20	6.80	6.60
Price, Machine Chain.....per hundred feet	15.00	14.00	13.00	12.50	12.00	11.50	11.00	10.80

STRAIGHT LINK COIL CHAIN.

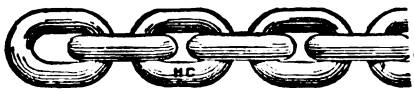

FIG. 1888.

TWIST COIL CHAIN.

FIG. 1889.

Size, Inches.	Estimated Weight of Straight Link Coil Chain, Per 100 Feet.	Proof Test B B Chain, Pounds.	Proof Test B B B Chain, Pounds.
3/16	50	770	90
1/4	75	1320	1500
5/16	110	2750	3200
3/8	155	3850	4525
7/16	200	5280	6100
1/2	265	6820	7850
9/16	325	8580	9870
5/8	420	10560	12150
11/16	500	12650	14550
3/4	590	15180	17475
13/16	700	17820	20500
7/8	800	20680	23780
15/16	900	23650	27200
1	1000	27100	31200
1 1/16	1100	28930	33300
1 1/8	1300	32450	37300
1 3/16	1400	36300	41750
1 1/4	1500	40150	46175
1 5/16	1750	44000	50600
1 3/8	1900	48400	55660
1 7/16	2000	53000	60950
1 1/2	2100	57750	66400
1 9/16	.....	62700	72100
1 5/8	.....	67870	78050
1 11/16	.....	73150	84120
1 3/4	.....	78760	90575

☞ Twist Coil Chain is made in all sizes up to and including ⅝ inch.

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THE W. M. PATTISON SUPPLY CO. 663 CLEVELAND

CLOSE LINK CABLE CHAIN.

STUD LINK CABLE CHAIN.

FIG. 1890. **Close Link Cable Chain.** FIG. 1891.

Size, Inches.	Outside Length, Inches.	Outside Width, Inches	Average Weight Per Fathom, Pounds.	Proof Test, Tons.
1	4 5/8	3 1/2	62	12
1 1/16	5	3 5/8	71	13 1/2
1 1/8	5 1/8	3 7/8	76	15 1/4
1 3/16	5 1/4	4 1/8	82	16 9/16
1 1/4	5 3/4	4 1/4	91	18 3/4
1 5/16	6	4 1/2	99	20 5/8
1 3/8	6 1/4	4 3/4	113	22 5/8
1 7/16	6 3/8	5	118	24 1/4
1 1/2	6 7/8	5 1/4	130	27
1 9/16	7 1/4	5 1/2	138	29 1/4
1 5/8	7 1/2	5 3/4	152	31 5/8

Stud Link Cable Chain.

Size, Inches.	Outside Length, Inches.	Outside Width, Inches.	Average Weight Per Fathom, Pounds.	Proof Test, Tons.
3/4	4 3/8	2 3/4	33	10 1/8
13/16	4 3/4	3	38	12
7/8	5	3 1/2	49	13 3/4
15/16	5 3/8	3 1/2	55	15 3/4
1	5 7/8	3 3/4	61	18
1 1/16	6 1/4	3 7/8	69	20 3/16
1 1/8	6 1/2	4 1/8	74	22 1/2
1 3/16	6 3/4	4 1/4	81	25 1/2
1 1/4	7 1/8	4 1/2	90	28 1/16
1 5/16	7 3/8	4 5/8	97	31
1 3/8	7 3/4	4 7/8	110	34
1 7/16	8 1/8	5 1/8	113	37 1/2
1 1/2	8 1/2	5 3/8	127	40 1/2
1 9/16	8 7/8	5 5/8	143	44
1 5/8	9 1/4	5 7/8	150	47 1/2
1 11/16	9 5/8	6	157	51 1/2
1 3/4	10	6 1/4	173	55 1/16
1 7/8	10 1/2	6 3/4	203	63 3/16
1 15/16	10 3/4	7	215	67 1/2
2	11 1/8	7 1/4	233	72
2 1/16	11 1/2	7 1/2	254	76 5/16
2 1/8	12	7 3/4	276	81 1/4
2 3/16	12 1/2	8	290	86 1/8
2 1/4	13	8 1/4	300	91

The above are U. S. Standard dimensions as adopted by the leading manufacturers of windlasses.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CHAINS.

DREDGE CHAIN.

FIG. 1892.

Size, Inches.	Outside Lenght, Inches.	Outside Width, Inches.	Center of One to Center of Next Link, Inches.	Weight, Per Foot, Lbs.	Safe Working Load, Lbs.	Average Breaking Test, Pounds.	Proof Test, Pounds.
¼	1 ½	1	⅞	¾	1330	4000	1600
5/16	1 11/16	1 3/16	1	1 1/16	2000	6000	3400
⅜	2 1/16	1 ⅜	1 1/16	1 ⅜	3000	9000	4725
7/16	2 ¼	1 9/16	1 ¼	2 1/16	4000	12000	6660
½	2 ½	1 11/16	1 9/32	2 ⅝	5330	16000	8850
9/16	2 ⅝	1 ⅞	1 ⅜	3 ½	6660	20000	11070
⅝	3	2 1/16	1 11/16	4 ¼	8330	25000	13350
11/16	3 ¼	2 ¼	1 13/16	5	10000	30000	16050
¾	3 ½	2 ½	1 15/16	6	12000	36000	18475
13/16	3 ⅝	2 11/16	2 1/16	7	14000	42000	21500
⅞	4	2 ⅞	2 3/16	8	16330	49000	24170
15/16	4 ⅛	3 1/16	2 ⅜	9	18300	55000	29000
1	4 ¼	3 ⅛	2 7/16	10 ½	20830	62500	32600
1 1/16	4 7/16	3 ⅜	2 ½	12	23330	70000	35950
1 ⅛	5 ⅛	3 ¾	2 ⅝	13 ½	26660	80000	39170
1 3/16	5 9/16	3 7/8	3 1/16	15	29330	88000	43620
1 ¼	5 ¾	4 ⅛	3 ⅛	16½	32000	96000	48000
1 5/16	6 ⅛	4 ⅜	3 ⅜	18	35000	105000	52900
1 ⅜	6 7/16	4 9/16	3 9/16	20	38630	116000	57460
1 7/16	6 11/16	4 ¾	3 11/16	22	42000	126000	63950
1 ½	7	5	3 ⅞	24	46660	140000	69280
1 9/16	7 ¼	5 3/16	4	26	50000	150000	76600
1 ⅝	7 ½	5 ⅜	4 1/16	28	53330	160000	81960
1 ¾	8	5 ¾	4 ⅛	32	61630	185000	96075
1 7/8	8 ⅜	6 1/16	4 7/16	37	66660	200000	110000
2	9 ¼	6 ½	5 ⅛	42	75000	225000	120000

CONVEYOR OR SPROCKET WHEEL CHAIN.

FIG. 1893.

Made to order only.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 665

CAR BRAKE CHAIN.

FIG. 1894.

Any style R. R. chain furnished to order.

Railroad Switch or Wrecking Chains.

GRAB HOOK ON ONE END, LONG LINK ON THE OTHER END.

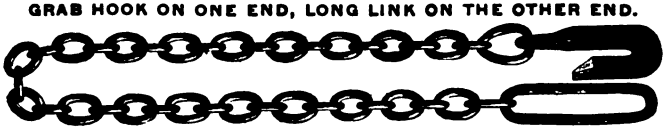

FIG. 1895.

GRAB HOOK ON ONE END AND TWO LONG LINKS IN CHAIN.

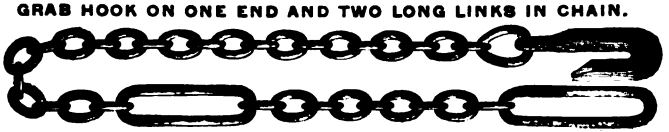

FIG. 1896.

GRAB HOOK ON ONE END AND SPECIAL SHAPE LONG LINK ON THE OTHER END.

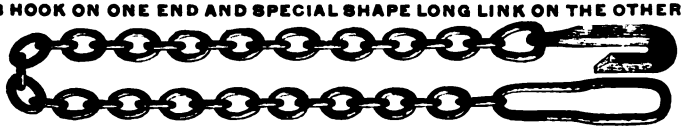

FIG. 1897.

Railroad Switch or Wrecking Chain.

Size.....inches	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1

Made any desired length.

ROLLING CHAIN.

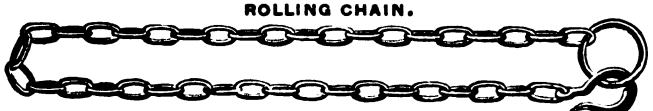

FIG. 1898.

Size.....inches	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$

Polished. Made any desired length.

LOG CHAIN.

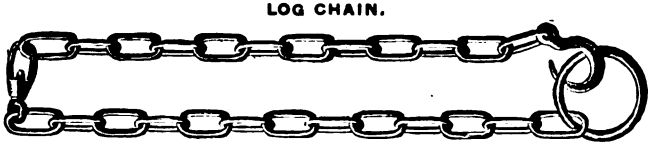

FIG. 1899.

Size.... ... .inches	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$

Polished. Length 12 to 14 feet will be furnished unless otherwise specified.

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SHACKLES.

ANCHOR, FOR CABLE CHAINS.

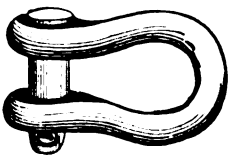

FIG. 1900.

Made of $\frac{5}{8}$ to $3\frac{1}{2}$ in. Iron.

JOINING, FOR CABLE CHAINS.

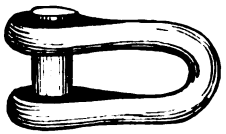

FIG. 1901.

Made of $\frac{7}{16}$ to $2\frac{3}{4}$ in. Iron.

JOINING, WITH COTTER PIN.

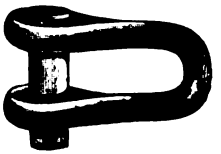

FIG. 1902

Made of $\frac{1}{2}$ to $1\frac{1}{2}$ in. Iron.

Grab Hooks.

BLUNT POINT, FOR R. R. SWITCH OR WRECKING CHAINS.

FIG. 1903.

POINTED, FOR R. R. SWITCH OR WRECKING CHAINS.

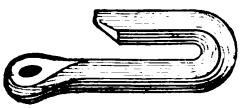

FIG. 1904.

SQUARE, FOR LOG CHAINS.

FIG. 1905.

FLAT, FOR LOG CHAINS.

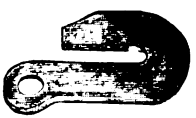

FIG. 1906.

SLIP, FOR LOG CHAINS

FIG. 1907.

COLD SHUT.

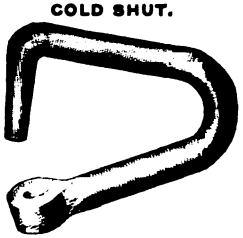

FIG. 1908.

LAP LINK.

FIG. 1909.

Cold Shuts.

Number	10	11	12	13	14
Price.....per gross	18.75	22.50	28.75	35.00	41.25

Lap Links.

Number	0	1	2	3	4
Price.....per gross	8.50	9.00	12.00	16.00	32.00

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THE W. H. PATTISON SUPPLY CO. CLEVELAND 667

KEYSTONE CONNECTING LINKS.

OPEN.

FIG. 1910.

CLOSED.

FIG. 1911.

Size .....inches	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1
Price, Forged Finish.....per dozen	2.00	2.25	2.50	3.25	4.00	7.50	10.00	15.00
Price, Galvanized.....per dozen	2.25	2.75	3.25	4.00	5.00	9.00	12.00	18.00

MINE CAR HITCHINGS.

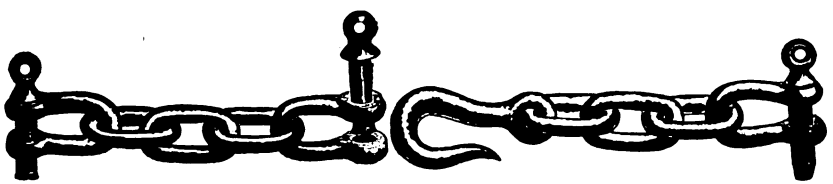

FIG. 1912. FIG. 1913.

Furnished in any weight and pattern desired.

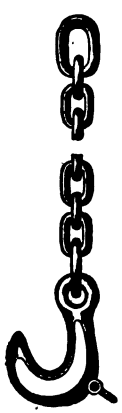

FIG. 1914.

Pile Pulling Chains.

Prices given on application.

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METALS.

PIG LEAD.

FIG. 1915.
Pigs Weigh about 100 Pounds.

BAR LEAD.

FIG. 1916.
In 25 Pound Boxes.

PIG TIN.

FIG. 1917.
Banca and Straights; Pigs Weigh about 100 Pounds.

BAR TIN.

FIG. 1918.
In 500 Pound Cases.

WIPING SOLDER.

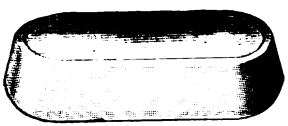

FIG. 1919.

HALF AND HALF SOLDER.

FIG. 1920.
Furnished in Warranted and Commercial Brands.

WIRE SOLDER.

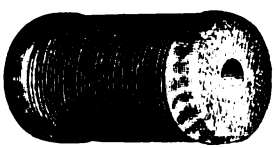

FIG. 1921.
Furnished in Half and Half.

SPELTER SOLDER.

FIG. 1922.
Fine and Coarse.

SILVER SOLDER.

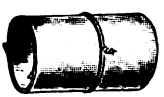

FIG. 1923.
Furnished in Sheets
$\frac{1}{4}$ x 48 inches.

COPPER INGOTS.

FIG. 1924.
In Ingots, 15 to 20 Pounds.

ANTIMONY.

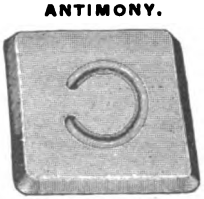

FIG. 1925.
In Slabs, 35 to 40 Pounds.

SPELTER OR ZINC.

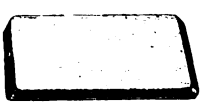

FIG. 1926.

Aluminum. Bronze. Phosphor Tin. Nickel. Bismuth.

Price of Metals on Application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 669

KELLAR ANTI-FRICTION.

FIG. 1927.

CADMAN'S ALLUMINUM ACORN BRAND.

FIG. 1928.

Cadmans' Aluminum Acorn Brand Babbitt Metal is made of the finest materials; it is never adulterated to reduce the cost, it answers for both high speed and heavy pressure. A cubic inch weighs 4.2 ounces; 3.809 cubic inches to the pound will cover a surface 15.236 square inches ¼ inch in thickness.

MAGNOLIA.

FIG. 1929.

DEFENDER.

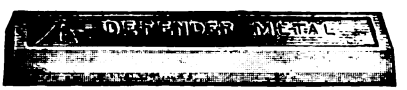

FIG. 1930.

MYSTIC.

FIG. 1931.

GENUINE.

FIG. 1932.

NOS. 1 AND 2.

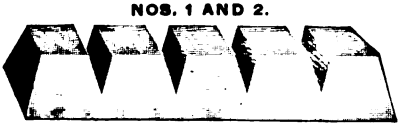

FIG. 1933.

NO. 4.

FIG. 1934.

Prices on application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

ROLL AND SHEET BRASS.

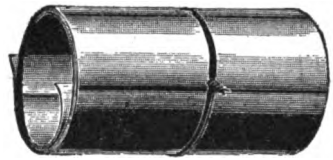

FIG. 1936.

Brown and Sharpe's Gauge, the Standard.

Common High Brass. Wider Than and Including } inches	2 12	12 14	14 16	16 18	18 20	20 22	22 24	24 26
Price, to No. 20 inclusive....per pound	.22	.23	.25	.27	.29	.31	.33	.36
Price, Nos. 21, 22, 23 and 24..per pound	.22	.24	.26	.28	.30	.32	.34	.37
Price, Nos. 25 and 26.....per pound	.23	.24½	.27	.29	.31	.33	.35	.38
Price, Nos. 27 and 28.....per pound	.23	.25	.28	.30	.32	.34	.36	.39

Common High Brass. Wider Than and Including } inches	26 28	28 30	30 32	32 34	34 36	36 38	38 40	40 .....
Price, to No. 20 inclusive....per pound	.39	.42	.46	.50	.55	.60	.65	Special Price Not Less Than 80 cents.
Price, Nos. 21, 22, 23 and 24..per pound	.40	.43	.47	.51	.56	.61	.68	
Price, Nos. 25 and 26.....per pound	.41	.44	.48	.52	.57	.63	.71	
Price, Nos. 27 and 28.....per pound	.42	.45	.49	.53	.58	.65	.75	

For each number Thinner than Nos. 28 to 38 inclusive add ½ cent per pound.

For sheets cut to particular lengths, (not sawed) of proportinate width add .07 cents per pound.

For Polishing on one side add .40 cents per square foot; on both sides, 80 cents per square foot.

For Brazing, Spinning and Spring Brass, add .01 cent more than common high brass.

For extra quality Brazing, Spinning and Spring Brass, add .02 cents more than common high brass.

For Low Brass, add .04 cents per pound more than common high brass.

For Gilding, Oreide and Bronze, add .07 cents per pound more than common high brass.

For Circles cut from above metal of proportionate width, No. 10 and thinner, .06 cents per pound additional.

For Circles cut from above metal of proportionate width, thicker than No. 10, .10 cents per pound additional.

For Embossed metal, add .04 cents per pound more than common high brass.

All segments, pattern sheets and irregular shape blanks will be charged at a price which will represent actual metal used at full price, accounting for full amount of scrap made at Association price, with full cost of labor added.

All metal heavier than No. 6 B. and S. gauge, listed and charged as sawed metal, whether slit or sawed.

Metal between gauges take price of next thinner gauge.

Fancy Embossed Brass.

Fancy Embossed Brass suitable for all kinds of special work. Prices on Application.

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THE W. M. PATTISON SUPPLY CO. 671 CLEVELAND

SLITTING BRASS AND BRONZE.

Additional to Roll and Sheet Brass List.

Price, ¼ inch and Narrower, Nos. 12 to 28 inclusive, not less than..per pound	.06
Price, ¼ inch and Narrower, Nos. 29 to 32 inclusive, not less than..per pound	.12
Price, ¼ inch and Narrower, No. 33 and Thinner, not less than....per pound	.18
Price, Wider than ¼ to ½ inch inclusive, Nos. 12 to 28 inc...per pound	.02
Price, Wider than ½ to 2 inch inclusive, Nos. 7 to 28 inc.....per pound	.01
Price, Wider than ¼ to ½ inch inclusive, Nos. 29 to 32 inc...per pound	.03
Price, Wider than ½ to 2 inch inclusive, Nos. 29 to 32 inc...per pound	.01½
Price, Wider than ¼ to ½ inch inclusive, No. 33 and Thinner..per pound	.06
Price, Wider than ½ to 2 inch inclusive, No. 33 and Thinner..per pound	.03
Price, Slit Metal, cut to particular lengths, additional to above.....per pound	.05
Price, Drawn Strips, additional to price of Slit Metal..... per pound	.04

Drawn Strips are all metal drawn in dies, thinner than No. 8 B. and S. gauge. No. 8 B. and S. and thicker, listed and sold as rectangular rod.

SAWING BRASS OR BRONZE.

Additional to Roll and Sheet Brass List.

Price, ½ inch and Narrower.....per pound	.08
Price, Wider than ½ to 1 inch inclusive.....per pound	.05
Price, Wider than 1 to 3 inch inclusive.....per pound	.04
Price, Wider than 3 inches.....per pound	.03
Price, Sawed Metal cut to particular lengths shorter than 1 in.....per pound	Special.
Price, Sawed Metal cut to particular lengths, 1 to 2 inch....per pound	.12
Price, Sawed Metal cut to particular lengths, 2 to 4 inch....per pound	.10
Price, Sawed Metal cut to particular lengths, 4 to 6 inch....per pound	.09
Price, Sawed Metal cut to particular lengths, 6 to 9 inch....per pound	.08
Price, Sawed Metal cut to particular lengths, 9 to 12 inch...per pound	.07
Price, Sawed Metal cut to particular lengths, 12 to 24 inch..per pound	.06
Price, Sawed Metal cut to particular lengths, 24 in. and over..per pound	.05

All metal heavier than No. 6, B. and S. Gauge listed and charged as sawed metal, whether slit or sawed.

Drawn Brass, Copper and Bronze Strips.

Round, Square and Oval Edges, all widths and gauges. Prices on Application.

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THE WM. PATTISON SUPPLY CO. CLEVELAND

SOFT ROLLED SHEET COPPER.

SIZE OF SHEETS.		PRICE PER POUND OVER BASE PRICE.								
Width, Inches.	Length, Inches.	64 Ounces and Over. Sheet 30x60 Inches, 50 Pounds and Heavier.	32 to 64 Ounce, Sheet 30x60 Inches, 25 to 50 Pounds.	24 to 32 Ounce, Sheet 30x60 Inches, 18¾ to 25 Pounds.	16 to 24 Ounce, Sheet 30x60 Inches, 12½ to 18¾ Pounds.	14 and 15 Ounce, Sheet 30x60 Inches, 11 to 12½ Pounds.	12 and 13 Ounce, Sheet 30x60 Inches, 9½ to 11 Pounds.	10 and 11 Ounce, Sheet 30x60 Inches, 7¾ to 9½ Pounds.	8 and 9 Ounce, Sheet 30x60 Inches, 6¼ to 7¾ Pounds.	Lighter than 8 Ounces.
Not Wider than 30	Not longer than 72.....	Base	Base	Base	Base	.01	.02	.03	.06	.09
	Longer than 72 Not longer than 96.....	Base	Base	Base	Base	.01	.03	.06	.09	.....
	Longer than 96.....	Base	Base	Base	Base	.02	.06	.....	.....	.....
Wider than 30, but not Wider than 36.	Not longer than 72.....	Base	Base	Base	Base	.02	.04	.07	.10	.....
	Longer than 72 Not longer than 96.....	Base	Base	Base	Base	.02	.06	.09	.....	.....
	Longer than 96 Not longer than 120...	Base	Base	Base	.01	.03	.....	.....	.....	.....
	Longer than 120.....	Base	Base	.01	.02	.....	.....	.....	.....	.....
Wider than 36, but not Wider than 48.	Not longer than 72.....	Base	Base	.01	.02	.04	.07	.10	.....	.....
	Longer than 72 Not longer than 96.....	Base	Base	.01	.03	.05	.08	.....	.....	.....
	Longer than 96 Not longer than 120...	Base	Base	.02	.04	.08	.....	.....	.....	.....
	Longer than 120.....	Base	.01	.03	.06	.....	.....	.....	.....	.....
Wider than 48, but not Wider than 60.	Not longer than 72.....	Base	Base	.01	.03	.06	.11	.....	.....	.....
	Longer than 72 Not longer than 96.....	Base	Base	.02	.04	.09	.....	.....	.....	.....
	Longer than 96 Not longer than 120...	Base	.01	.03	.06	.....	.....	.....	.....	.....
	Longer than 120.....	.01	.02	.04	.08	.....	.....	.....	.....	.....
Wider than 60, but not Wider than 72.	Not longer than 96.....	Base	.01	.03	.08	.....	.....	.....	.....	.....
	Longer than 96 Not longer than 120...	Base	.02	05	.10	.....	.....	.....	.....	.....
	Longer than 120.....	.01	.03	.08	.....	.....	.....	.....	.....	.....
Wider than 72, but not Wider than 108.	Not longer than 96.....	.01	.03	.06	.....	.....	.....	.....	.....	.....
	Not longer than 96 Not longer than 120...	.02	.04	.07	.....	.....	.....	.....	.....	.....
	Longer than 120.....	.03	.05	.09	.....	.....	.....	.....	.....	.....
Wider than 108.	Not longer than 132...	.04	.06	.....	.....	.....	.....	.....	.....	.....
	Longer than 132.....	.05	.08	.....	.....	.....	.....	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. 673 CLEVELAND

Price, Cold or Hard Rolled Copper 14 ounce and heavier, advance over price of Soft Rolled Sheet Copper of corresponding thickness and dimensions.....per pound	.01
Price, Cold or Hard Rolled Copper lighter than 14 ounce, advance over price of Soft Rolled Sheet Copper of corresponding thickness and dimensions.... per pound	.02
Price, Cold Rolled Mirror Finish Copper up to and including 20 inches wide, advance over the price of Cold Rolled Copper of same thickness....per pound	.01
Price, Cold Rolled Mirror Finished Copper wider than 20 inches, advance over the price of Cold Rolled Copper of same thickness.....per pound	.02
Price, Tinning Soft Cold Rolled and Mirror Finish Copper on one side....per square foot	.02½
Price, Tinning Soft Cold Rolled and Mirror Finish Copper on both sides...per square foot	.05
Price, Copper Circles, Segments and Pattern Sheets, advance over price of sheets required to cut them.....per pound	.03

Corrugated Sheet Copper, for Wash Trays, Sinks, Etc.

Weight per square foot.....ounces	16	16	16	16
Size of Sheets before Corrugating.....inches	24x48	24x60	30x48	30x60
Price..... per sheet	3.25	3.75	3.75	4.50

Size of Sheets After Corrugating.

24 inch wide sheets, width of Corrugation 14½ inches, plain surface 2 inches one side, 5 inches other side. Total width of 24 inch sheets after Corrugating, 21½ inches: 30 inch wide sheets, width of Corrugation, 20½ inches. Plain surface, 2 inch one side, 5 inches other side. Total width of 30 inch sheet after corrugating, 27½ inches.

German Silver.

Number.....	20	21	22	24
Width.....inches	6	6	6	6
Price..... per pound	.60	.61	.62	.64

Sheet Zinc.

Zinc Gauge.....number	6	9	10	11	12
Stubs Wire Gauge..... number	29	26	25	24	23
Width of Sheet. .....inches	36	30, 32, 34, 36, 40	36	36	36
Length of Sheet.....inches	84	84	84	84	84

In casks of 100, 200, 300 and 600 pounds. Prices on application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SHEET IRON AND STEEL.

Thickness and Weight Adopted by U. S. Government, July 1, 1893.

Number of Gauge.	Approximate Thickness in Fractions of an Inch.	Approximate Thickness in Decimal Parts of an Inch.	Weight Per Square Foot, Ounces.	Weight Per Square Foot, Pounds.
0000000	1–2	.5	320	20.
000000	15–32	.46875	300	18.75
00000	7–16	.4375	280	17.5
0000	13–32	.40625	260	16.25
000	3–8	.375	240	15.
00	11–32	.34375	220	13.75
0	5–16	.3125	200	12.5
1	9–32	.28125	180	11.25
2	17–64	.265625	170	10.625
3	1–4	.25	160	10.
4	15–64	.234375	150	9.375
5	7–32	.21875	140	8.75
6	13–64	.203125	130	8.125
7	3–16	.1875	120	7.5
8	11–64	.171875	110	6.875
9	5–32	.15625	100	6.25
10	9–64	.140625	90	5.625
11	1–8	.125	80	5.
12	7–64	.109375	70	4.375
13	3–32	.09375	60	3.75
14	5–64	.078125	50	3.125
15	9–128	.0703125	45	2.8125
16	1–16	.0625	40	2.5
17	9–160	.05625	36	2.25
18	1–20	.05	32	2.
19	7–160	.04375	28	1.75
20	3–80	.0375	24	1.5
21	11–320	.034375	22	1.375
22	1–32	.03125	20	1.25
23	9–320	.028125	18	1.125
24	1–40	.025	16	1.
25	7–320	.021875	14	.875
26	3–160	.01875	12	.75
27	11–640	.0171875	11	.6875
28	1–64	.015625	10	.625
29	9–640	.0140625	9	.5625
30	1–80	.0125	8	.5
31	7–640	.0109375	7	.4375
32	13–1280	.01015625	6½	.40625
33	3–320	.009376	6	.375
34	11–1280	.00859375	5½	.34375
35	5–640	.0078125	5	.3125
36	9–1280	.00703125	4½	.28125
37	17–2560	.006640625	4¼	.265625
38	1–160	.00625	4	.25

Allowances for overweight for Rectangular Plates when ordered to gauge see page 675.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SHEET IRON AND STEEL.

Allowances for Overweight for Rectangular Plates when Ordered to Gauge, Adopted by the Association of Steel Manufacturers, July 17, 1896.

Thickness, Inches.	Up to 50 in. Wide, Per Cent.	50 in. Wide and Above, Per Cent.	Up to 75 in. Wide, Per Cent.	75 to 100 in. Wide, Per Cent.	Over 100 in. Wide, Per Cent.	Thickness, Inches.	Up to 75 in. Wide, Per Cent.	75 to 100 in. Wide, Per Cent.	Over 100 in. Wide, Per Cent.
1/8 to 5/32	.10	.15	.....	.....	.....	7/16	.07	.10	.13
5/32 to 3/16	.08½	.12½	.....	.....	.....	1/2	.06	.08	.10
3/16 to 1/4	.07	.10	.....	.....	.....	9/16	.05	.07	.09
1/4	.....	.....	.10	.14	.18	5/8	.04½	.06½	.08½
5/16	.....	.....	.08	.12	.16	11/16	.04	.06	.08

Galvanized Sheet Iron.

Number of Gauge.	Price, Per Pound.	Price, Per Square Foot.	Weight, Per Square Foot, Ounces.	Weight Per Square Foot, Pounds.
10	.12	.6936	92½	5.78
12	.12	.5436	72½	4.53
14	.12	.3937	52½	3.281
16	.12	.3187	42½	2.656
18	.13	.2802	34½	2.156
19	.13	.2477	30½	1.906
20	.13	.2152	26½	1.656
21	.13	.1989	24½	1.53
22	.14	.1968	22½	1.406
23	.14	.1792	20½	1.28
24	.14	.1618	18½	1.156
25	.15	.1545	16½	1.03
26	.15	.1359	14½	.906
27	.16	.1349	13½	.8437
28	.17	.1328	12½	.7812
29	.19	.1365	11½	.7187
30	.21	.1378	10½	.6562

Standard Sizes: Gauges Nos. 14 to 30 inclusive, 24, 26, 28 and 30 inches wide by 72, 84 and 96 inches long.

Additional to List on Extra Sizes.

Nos. 16, 17 and 18.

Price, over 36 to 40 inches...per pound	.01	Price, over 44 to 48 inches...per pound	.02½
Price, over 40 to 44 inches...per pound	.01½		

Nos. 19 and Lighter.

Price, Less than 24 inches...per pound	.01	Price, Over 40 to 44 inches...per pound	.03
Price, Over 32 to 36 inches...per pound	.01	Price, Over 44 to 48 inches...per pound	.05
Price, Over 36 to 40 inches...per pound	.02		

Extra Lengths.

Price, Longer than 120 inches...per pound	.01	Price, Shorter than 60 inches.....per pound	.01

One half cent per pound additional for Pattern Sheets.

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BRASS, COPPER AND BRONZE RODS.

High Brass Rods.

BROWN & SHARPES GAUGE THE STANDARD. IN LENGTHS NOT LESS THAN 2 FEET.

Diameter, Inches. Price, ...per pound	¼ to 1 inclusive. .24	No. 8 and less than ¼ .26	Over 1 .27	Smaller than No. 8 to 11 inclusive. .30

Price, Hexagon, Octagon and Square Rods, 2 cents per pound advance over Round Rods.

Price, Rectangular, Half Round and Fancy Shapes, not less than 4 cents per pound advance over Round Rods.

High Brass Rods Less than 2 Foot Lengths, Additional to Price of High Brass Rods.

Length.....inches	12 to 24	9 to 12	6 to 9	4 to 6	2 to 4	1 to 2
Price..... per pound	.02	.03	.04	.05	.08	.12

Price, Gilding and Bronze Rods, 8 cents per pound advance over High Brass Rods.

Price, Low Brass Rods, 4 cents per pound advance over High Brass Rods.

COPPER RODS.

Round, Square and Reotangular.

Any diameter in round or square, from ⅛ to 2½ inches and any width and thickness in rectangular.

Phosphor-Bronze Rods for Bolts, Studs, Screws, Etc.

Price, 1 to 2 inches diameter, inclusive, varying ⅛ inches.....per pound	.50
Price, ⅝ to 1⅞ inches diameter, inclusive, varying $\frac{1}{16}$ inches.....per pound	.50
Price, ¼ to $\frac{9}{16}$ inches diameter, inclusive, varying $\frac{1}{32}$ inches.....per pound	.55
Price, Hexagon and Square ⅝ to 1¼ inches, varying ⅛ inches...per pound	.55
Price, Hexagon and Square ¼ to $\frac{9}{16}$ inches, varying $\frac{1}{16}$ inches...per pound	.60
Price, Hexagon and Square ⅛ to $\frac{3}{16}$ inches, varying $\frac{1}{16}$ inches...per pound	.65
Price, Hexagon and Square Nos. 9 to 11.....per pound	.70
Price, Rectangular, ¼ inch thick and over.....per pound	.60
Price, Rectangular, ⅛ to $\frac{3}{16}$ inch thick.....per pound	.65
Price, Rectangular Nos. 9 to 11.....per pound	.70

Phosphor-Bronze Finished Rods; Round, Smooth and Straight, for Piston Rods, Etc.

Diameter, Inches. Price....per pound	⅝ to 2 inclusive, varying $\frac{1}{16}$ .55	¼ to $\frac{9}{16}$ inclusive, varying $\frac{1}{16}$ .60	No. 8 and under ¼ .63	No. 9 to 11 inclusive .65

Rods drawn to decimals of an inch or metre, not Standard, 5 cents per pound additional.

Cutting Bronze Rods, Additional to List.

Length.....inches	12 and longer	9 and under 12	6 and under 9	4 and under 6	2 and under 4	1 and under 2
Price.....per pound	.02	.03	.04	.05	.08	.12

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 677

SEAMLESS BRASS TUBING.

STUBS GAUGE THE STANDARD. OUTSIDE DIAMETER.

Stubs, Guage.	American or B. & S. Guage.	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3
4 to 11	3 to 9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	BASE PRICE							
12	10	.....	.....	.....	.....	.....	.....	.....	.06	.06	.05	.05								
13	11	.....	.....	.....	.....	.....	.....	.....	.07	.07	.05	.05								
14	12	....	.....	.....	.....	.....	.07	.07	.07	.05	.05	.05	.01	.01	.01	.01	.01	.01	.01	.01
15	13	.....	.....	.....	.....	.08	.07	.07	.07	.05	.05	.05	.01	.01	.01	.01	.01	.01	.01	.01
16	14	.....	.....	.....	.08	.08	.07	.07	.07	.05	.05	.05	.02	.02	.02	.02	.02	.02	.02	.02
17	15	.....	.....	.11	.08	.08	.07	.07	.07	.05	.05	.05	.03	.03	.03	.03	.03	.03	.03	.03
18	16	.....	.31	.13	.09	.09	.08	.08	.08	.06	.06	.06	.04	.04	.04	.04	.04	.04	.04	.06
19	17	.64	.40	.13	.09	.09	.08	.08	.08	.06	.06	.06	.05	.05	.05	.05	.05	.05	.07	.08
20	18-19	.69	.42	.13	.09	.09	.08	.08	.08	.06	.06	.06	.06	.06	.06	.06	.06	.07	.07	.08
21	20	.74	.44	.29	.11	.10	.10	.08	.07	.07	.07	.07	.07	.07	.07	.07	.07	.....	.....	.....
22	21	.79	.49	.34	.13	.13	.11	.11	.09	.08	.08	.08	.08	.08	.08	.08	.08	.....	.....	.....
23	22	.84	.54	.39	.15	.15	.13	.13	.11	.11	.11	.11	.11	.11	.11	.13	.15	.....	.....	.....
24	23	.94	.59	.44	.31	.26	.24	.23	.22	.21	.19	.18	.18	.19	.19	.20	.21	.....	.....	.....
25	24	1.09	.64	.49	.34	.29	.27	.25	.24	.23	.22	.22	.23	.24	.....	.....	.....	.....	.....	.....

Stubs, Guage.	American or B. & S. Guage.	3 1/4	3 1/2	3 3/4	4	4 1/4	4 1/2	4 3/4	5	5 1/4	5 1/2	5 3/4	6	6 1/4	6 1/2	6 3/4	7	7 1/4	7 1/2	7 3/4
4 to 11	3 to 9	BASE PRICE.		.01	.01	.01	.03	.03	.05	.05	.06	.06	.07	.07	.07	.07	.07	.09	.09	.09
12	10			.02	.02	.02	.04	.04	.06	.06	.07	.07	.08	.08	.08	.08	.08	.10	.10	.10
13	11			.03	.03	.03	.05	.05	.07	.07	.08	.08	.09	.09	.09	.09	.08	.11	.11	.11
14	12	.01	.01	.04	.04	.04	.06	.06	.08	.08	.09	.09	.10	.10	.10	.10	.10	.12	.12	.12
15	13	.01	.01	.06	.06	.06	.07	.07	.09	.09	.11	.11	.14	.14	.14	.16	.16	.19	.19	.19
16	14	.02	.05	.06	.07	.08	.11	.11	.11	.16	.16	.16	.19	.19	.23	.23	.23	.26	.26	.26
17	15	.05	.06	.07	.08	.09	.12	.12	.12	.17	.17	.17	.20	.20	.24	.24	.24	.27	.27	.27
18	16	.07	.08	.09	.10	.11	.14	.14	.14	.20	.20	.20	.23	.23	.30	.30	.30	.....	.....	.....
19	17	.09	.10	.11	.13	.15	.17	.21	.21	.25	.29	.31	.31	.....	.....	.....	.....	.....	.....	.....
20	18-19	.09	.11	.11	.13	.19	.19	.23	.23	.31	.31	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23	22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

For diameters of the fractional parts of an inch where no price is given take the column to the left where such sizes would appear if designated.

Copper, Bronze and Gilding Tubes.

Price, 3 cents per pound advance over price of Brass Tubing.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SEAMLESS BRASS TUBING.

STUBS GAUGE THE STANDARD. OUTSIDE DIAMETER.

Stubs' Gauge.	American or B and S Gauge.	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3
4 to 8	3 to 6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.06	.05	.03	.02	.01	BASE,				
9	7	.....	.....	.....	.....	.....	.....	.....	.....	.07	.06	.05	.03	.02	.01					
10	8	.....	.....	.....	.....	.....	.11	.09	.08	.07	.06	.05	.03	.02	.01					
11	9	.....	.....	.....	.....	.....	.11	.09	.08	.07	.06	.05	.03	.02	.01	PRICE.				
12	10	.....	.....	.....	.15	.13	.11	.09	.08	.07	.06	.05	.03	.02	.01					
13	11	.....	.....	.....	.15	.13	.11	.09	.08	.07	.06	.05	.03	.02	.01	.01	.01	.01	.01	.01
14	12	.....	.....	.19	.15	.13	.11	.09	.08	.07	.06	.05	.03	.02	.01	.01	.01	.01	.01	.01
15	13	.....	.....	.20	.16	.14	.11	.10	.09	.08	.07	.06	.04	.03	.02	.02	.02	.02	.02	.02
16	14	.....	.....	.21	.17	.15	.12	.11	.10	.09	.08	.07	.04	.03	.03	.03	.03	.03	.03	.03
17	15	.....	.....	.22	.18	.16	.13	.12	.11	.10	.09	.08	.05	.04	.04	.04	.04	.04	.04	.04
18	16	.59	.39	.24	.20	.17	.14	.13	.12	.10	.09	.08	.06	.05	.05	.05	.05	.05	.06	.06
19	17	.64	.40	.25	.21	.18	.15	.14	.13	.12	.11	.10	.08	.07	.06	.06	.06	.06	.07	.08
20	18,19	.69	.42	.27	.22	.19	.17	.16	.15	.14	.13	.12	.10	.09	.08	.08	.08	.08	.09	.10
21	20	.74	.44	.29	.24	.21	.19	.18	.17	.16	.15	.14	.13	.12	.10	.10	.10	.10	.11	.12
22	21	.79	.49	.34	.26	.22	.20	.19	.18	.17	.16	.15	.15	.14	.12	.12	.13	.14	.14	.15
23	22	.84	.54	.39	.28	.24	.22	.21	.20	.19	.18	.17	.17	.17	.15	.15	.16	.17	.17	.18
24	23	.94	.59	.44	.31	.26	.24	.23	.22	.21	.19	.18	.18	.19	.19	.19	.20	.20	.....	.....
25	24	1.09	.64	.49	.34	.29	.27	.25	.24	.23	.22	.21	.22	.23	.....	.....	.....	.....	.....	.....

Stubs' Gauge.	American or B and S Gauge.	3 1/4	3 1/2	3 3/4	4	4 1/4	4 1/2	4 3/4	5	5 1/4	5 1/2	5 3/4	6	6 1/4	6 1/2	6 3/4	7	7 1/4	7 1/2	7 3/4
4 to 8	3 to 6	BASE,			.01	.01	.02	.03	.04	.05	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06
9	7				.01	.01	.02	.03	.04	.05	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06
10	8				.01	.01	.02	.03	.04	.05	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06
11	9	PRICE.			.01	.01	.02	.03	.04	.05	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06
12	10				.02	.02	.03	.04	.05	.06	.07	.07	.07	.07	.07	.07	.07	.07	.07	.07
13	11	.01	.01	.02	.03	.03	.04	.05	.06	.07	.08	.08	.08	.08	.08	.08	.08	.08	.08	.08
14	12	.01	.02	.03	.04	.04	.05	.06	.07	.08	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09
15	13	.02	.03	.04	.05	.05	.06	.07	.08	.09	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10
16	14	.03	.04	.05	.06	.07	.08	.09	.10	.11	.12	.12	.12	.12	.12	.12	.12	.12	.12	.12
17	15	.05	.06	.07	.08	.09	.10	.11	.12	.13	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14
18	16	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.16	.16	.16	.16	.16	.16	.16	.16	.16
19	17	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.18	.18	.18	.18	.18	.18	.18	.18	.18
20	18,19	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.20	.20	.20	.20	.20	.20	.20	.20	.20
21	20	.13	.14	.15	.16	.17	.18	.19	.20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	21	.16	.17	.18	.19	.20	.21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23	22	.19	.20	.21	.22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

For diameters of the fractional parts of an inch where no price is given, take the column to the left where such sizes would appear if designated.

Copper, Bronze and Gilding Tubes.

Price 3 cents per pound advance over price of Brass Tubing.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

BRAZED BRASS TUBING.

B. & S. GAUGE THE STANDARD.

Outside Diameter, Inches.	$\frac{3}{32}$ and up to 2 to No. 19 Inclusive.	$\frac{5}{32}$ and up to $\frac{3}{4}$ to No. 19 Inclusive.	$\frac{1}{8}$ and up to $\frac{5}{8}$ to No. 19 Inclusive.	$\frac{3}{16}$ and up to $\frac{1}{2}$ to No. 19 Inclusive.	$\frac{1}{16}$ and up to $\frac{3}{8}$ to No. 19 Inclusive.	$\frac{1}{4}$ and up to $\frac{5}{16}$ to No. 19 Inclusive.	$\frac{3}{16}$ and up to $\frac{1}{4}$ to No. 19 Inclusive.	$\frac{1}{8}$ and up to $\frac{3}{16}$ to No. 19 Inclusive.
Price....per pound	.35	.36	.38	.41	.48	.65	1.00	1.50

Outside Diameter. Inches.	Smaller than $\frac{1}{8}$	2 and up to 3 to No. 19 Inclusive.	3 to No. 19 Inclusive.	Over 3 to $3\frac{1}{2}$ to No. 19 Inclusive.	Over $3\frac{1}{2}$ to No. 19 Inclusive.
Price.....per pound	Special.	.38	.40	.45	.50

Copper and Bronze Brazed Tubing.

Price 3 cents per pound additional to list of Brass Tubing.

Cutting Brazed Brass Tubing, Additional to List.

Length Inches.	Longer than 12	Over 6 to 12	Over 4 to 6	Over 2 to 4	Over 1 to 2	Shorter than 1
Price ..per lb.	.01	.02	.03	.04	.06	Special

Polishing, Lacquering, Nickel Plating and Threading, Seamless Brass and Copper Tubing.

Iron Pipe, Sizes, Inches.	All Other Tubes Outside Diameter, Inches.	Price, Polishing, Per Foot.	Price, Polishing and Lacquering, Per Foot.	Price, Polishing and Nickel Plating, Per Foot.	Price, Threading, Per Thread.
.....	$\frac{1}{4}$	.01$\frac{1}{2}$	.02$\frac{1}{4}$	.02$\frac{1}{4}$	.03
$\frac{1}{8}$	$\frac{3}{8}$	.01$\frac{1}{2}$	.02$\frac{1}{4}$	.02$\frac{1}{4}$	.03
$\frac{1}{4}$	$\frac{1}{2}$	.01$\frac{3}{4}$	.02$\frac{3}{8}$	.02$\frac{3}{8}$	.03
$\frac{3}{8}$	$\frac{5}{8}$	.02	.02$\frac{1}{2}$	.02$\frac{1}{2}$	.03
$\frac{1}{2}$	$\frac{3}{4}$	.02$\frac{1}{4}$	.03	.03	.03
.....	$\frac{7}{8}$	.02$\frac{1}{2}$	.03$\frac{3}{8}$	.03$\frac{3}{8}$	.03
$\frac{3}{4}$	1	.02$\frac{3}{4}$	.03$\frac{3}{4}$	.03$\frac{3}{4}$	.03
.....	$1\frac{1}{8}$	.03	.04$\frac{1}{8}$	.04$\frac{1}{8}$	.03
1	$1\frac{1}{4}$	.03$\frac{1}{2}$	.04$\frac{1}{2}$	.04$\frac{1}{2}$	.03
.....	$1\frac{3}{8}$	.03$\frac{3}{4}$	.05	.05	.03
.....	$1\frac{1}{2}$	.04	.05$\frac{1}{4}$	.05$\frac{1}{4}$	.03$\frac{1}{2}$
$1\frac{1}{4}$	$1\frac{5}{8}$	.04$\frac{1}{4}$	.05$\frac{1}{2}$	.05$\frac{1}{2}$	.04
.....	$1\frac{3}{4}$	.04$\frac{3}{4}$	.06$\frac{1}{4}$	.06$\frac{1}{4}$	.04$\frac{1}{2}$
$1\frac{1}{2}$	$1\frac{7}{8}$	.05$\frac{1}{4}$	.07	.07	.05
.....	2	.06	.08$\frac{1}{2}$	.08$\frac{1}{2}$	.06
2	$2\frac{1}{4}$	.07$\frac{1}{2}$	.10	.10	.07
.....	$2\frac{1}{2}$	.09$\frac{1}{2}$	.12$\frac{1}{2}$	.12$\frac{1}{2}$	.08$\frac{1}{2}$
$2\frac{1}{2}$	$2\frac{3}{4}$	.11$\frac{1}{2}$	.15	.15	.10
.....	3	.12$\frac{1}{2}$	.16$\frac{1}{2}$	.16$\frac{1}{2}$	.12
.....	$3\frac{1}{4}$	.13$\frac{1}{2}$	.18	.18	.13$\frac{1}{2}$
3	$3\frac{1}{2}$	.15	.20	.20	.15
.....	$3\frac{3}{4}$	.17	.22$\frac{1}{2}$	.22$\frac{1}{2}$	.17$\frac{1}{2}$
$3\frac{1}{2}$	4	.19	.25	.25	.20
4	$4\frac{1}{2}$	.22	.30	.30	.20
$4\frac{1}{2}$	5	.26	.35	.35	.25
5	$5\frac{1}{2}$	.30	.40	.40	.30
.....	6	.34	.45	.45	.35
6	$6\frac{1}{2}$	.38	.50	.50	.43

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

Brass and Copper Wire to No. 21 inclusive, Stubs' Gauge; 22 and finer, London Gauge.

Brown and Sharpes' Gauge.	Old English or London Gauge.	Price, Soft and Hard High Brass, Per Pound.	Price, Spring High Brass, Per Pound.	Price, Low Brass, Per Pound.	Price, Bronze and Copper, Per Pound.
All Nos. to No. 10	All Nos. to No. 12	.23	.25	.27	.28
No. 10 = .1089	No. 12 = .109	.23	.25	.27	.28
No. 11 = .09074	No. 13 = .095	.23½	.25½	.27½	.28½
No. 12 = .08081	No. 14 = .083	.23½	.25½	.27½	.28½
No. 13 = .07196	No. 15 = .072	.23½	.25½	.27½	.28½
No. 14 = .06408	No. 16 = .065	.23½	.25½	.27½	.28½
No. 15 = .05707	No. 17 = .058	.23½	.25½	.27½	.28½
No. 16 = .05082	No. 18 = .049	.23½	.25½	.27½	.28½
No. 17 = .04526	No. 18½ = .045	.24	.26	.28	.32
No. 18 = .0403	No. 19 = .042	.24	.26	.28	.32
No. 19 = .036	No. 20 = .035	.25	.27	.29	.33
No. 20 = .03196	No. 21 = .0315	.25	.27	.29	.33
No. 21 = .0285	No. 22 = .0295	.26	.28	.30	.34
No. 21½ = .027	No. 23 = .027	.27	.29	.31	.35
No. 22 = .0253	No. 24 = .025	.27	.29	.31	.35
No. 23 = .0226	No. 25 = .023	.28	.30	.32	.36
No. 24 = .0201	No. 26 = .0205	.30	.32	.34	.38
No. 25 = .0179	No. 27 = .01875	.32	.34	.36	.40
No. 25½ = .0169	No. 28 = .0165	.35	.37	.39	.43
No. 26 = .0159	No. 29 = .0155	.35	.37	.39	.43
No. 27 = .0142	No. 30 = .01375	.38	.40	.42	.46
No. 28 = .0126	No. 31 = .01225	.42	.44	.46	.51
No. 29 = .01125	No. 32 = .01125	.45	.47	.49	.54
No. 30 = .010	No. 33 = .01025	.48	.50	.52	.62
No. 31 = .009	No. 35 = .009	.51	.53	.55	.67
No. 32 = .008	No. 35½ = .00825	.55	.57	.59	.73
No. 33 = .0071	No. 36 = .0075	.59	.61	.63	.82
No. 34 = .0063	No. 37 = .0065	.64	.66	.68	.95
No. 35 = .0056	No. 38 = .00575	.70	.72	.74	1.30
No. 36 = .005	No. 39 = .005	.76	.78	.80	1.50
No. 37 = .00445	No. 40 = .0045	1.00	1.02	1.04	1.70
No. 38 = .004	.....	1.30	1.32	1.34	2.00
No. 39 = .00355	.....	2.00	2.02	2.04	3.25
No. 40 = .00314	.....	2.60	2.62	2.64	5.75

Prices Per Pound Advance on Above List.

Spring Wire, 2 cents. Whitened Wire 3 cents. Fancy Wire not less than 10 cents.

Flat, Square and Half Round Wire 4 cents, gauged the thin way after finishing.

Wire straigtened and cut No. 12 B and S gauge and smaller 12 cents, same additions for cutting to length when under 2 feet as rods.

Wire in coils, 3 pounds and under the same extras as Spooling Wire of corresponding weights, see page 680.

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SPOOLING BRASS AND COPPER WIRE.

Additional to the List of Round Wire, Page 679.

On Spools.....pounds	1	2	3	4	5	6	7	8	9	10
Price.....per pound	.12	.11	.10	.09	.08	.07	.06	.05	.04	.03

Phosphor-Bronze Wire in Coils.

B. & S. GAUGE THE STANDARD.

Number.	Diameter, Inches.	Price, Per Pound.	Number.	Diameter, Inches.	Price, Per Pound.
To 10	.101890	.58	26	.015940	.78
11 to 16	.050820	.60	27	.014195	.84
17	.045257	.61	28	.012641	.90
18	.040303	.61	29	.011257	1.00
19	.035890	.62	30	.010025	1.10
20	.031961	.62	31	.008928	1.25
21	.028462	.64	32	.007950	1.50
22	.025347	.66	33	.007080	1.75
23	.022571	.68	34	.006304	2.00
24	.020100	.70	35	.005614	2.50
25	.017900	.74	36	.005000	4.25

Prices Per Pound Advance on Above List.

Flat Rolled Wire, No. 12 to 30 gauged the thin way 10 cents. Thinner than No. 30, Special: Square Wire to No. 16, 5 cents. Nos. 17 to 20, 10 cents.

Tinned Binding to No. 20 (round) 5 cents. Straightened Wire Nos. 12 to 20 inclusive, 10 cents.

Straight Wire, smaller than No. 20, Special. Cutting Straightened Wire to length not smaller than No. 20, same additions as for Rods.

ELECTRICAL WIRES.

BARE COPPER WIRE, SOFT AND HARD DRAWN.

18 PER CENT GERMAN SILVER RESISTANCE WIRE. MOISTURE PROOF WIRE.

WATERPROOF AND UNDERWRITERS WIRE.

MAGNET WIRE. ANNUNCIATOR AND OFFICE WIRE.

Incandescent Lamp Cord.

Prices on Application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEEL WIRE.

Market Wire.

Number	0000 to 9	10 and 11	12	13 and 14	15 and 16	17	18
Price.....per pound	.10	.11	.11½	.12½	.14	.15	.16

Market Wire. This term applies to the ordinary forms of Bessemer Wires, such as :

ANNEALED. BRIGHT. GALVANIZED. TINNED. COPPERED.

Tinned Wire.

Number	0 to 9	10 and 11	12 to 14	15 and 16	17	18
Price.....per pound	.15	.16	.17	.17½	.18	.18½

Annealed Stone or Weaving Wire.

Number	16	17	18	19	20	21	22	23	24	25	26
Price.....per pound	.14	.15	.16	.19	.20	.21	.22	.23	.24	.25	.26
Number	27	28	29	30	31	32	33	34	35	36	37
Price.....per pound	.28	.29	.30	.32	.33	.35	.37	.40	.45	.55	.40
Number	38	39	40	41	42	43	44	45	46	47	.....
Price.....per pound	.45	.50	.55	.60	.65	.75	.85	1.00	1.15	1.40	.....

Tinned Stone Wire.

Number	18	19 and 20	21 and 22	23 and 24	25	26	27	28
Price.....per pound	.18½	.19	.20	.21	.22	.23	.24	.25
Number	29	30	31	32	33	34	35	36
Price.....per pound	.26	.27	.28	.32	.33	.34	.40	.48

Cast Steel Wire.

Number	½ to 6	7 to 9	10 and 11	12	13	14	15	16	17	18	19	20
Price.....per pound	.23	.24	.25	.26	.28	.30	.32	.33	.34	.36	.38	.40

Advances on Smooth Fence Wire.

Number	6 to 9	5 and Coarser	10	11	12 and 12½	13
Price, Annealed, Advance 100 Pounds	Base	.05	.05	.10	.15	.25
Price, Galvanized, Additional to Price of Annealed	.40	.40	.40	.40	.40	.40
Number	14	15	16	17	18	.....
Price, Annealed, Advance Per 100 Pounds	.35	.45	.55	.70	.85	.....
Price, Galvanized, Additional to Price of Annealed	.40	.75	.75	1.00	1.00	.....

Even weight bundles of 50 pounds and upward 5 cents per bundle extra, except 100 pound bundles, which are considered standard and take no extra charge.

Barbed Wire, pony reels, 5 cents per 100 pounds advance.

Music Wire.

Number	00	0	1	2	3	4	5	6	7	8	9	10to36
Price.....per pound	8.75	6.75	5.50	4.70	4.15	3.25	2.65	1.25	1.25	1.20	1.10	1.00

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THE W. M. PATTISON SUPPLY CO. 682 CLEVELAND

POULTRY NETTING.

GALVANIZED, BEFORE OR AFTER WEAVING.

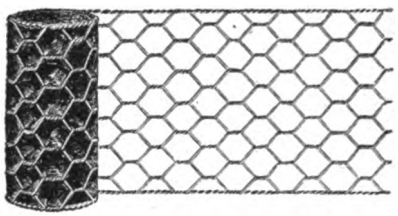

FIG. 1936.

Mesh, Inches.	Number of Wire.	Price, Per Square Foot.	Mesh, Inches.	Number of Wire.	Price, Per Square Foot.
3	14	.06½	1½	17	.07½
	15	.04¾		18	.04½
	16	.03¾		19	.03½
	17	.03		20	.03
	18	.02½	1	18	.07¾
2	14	.09½		19	.06½
	15	.07½		20	.05½
	16	.05½	¾	.....	.....
	17	.04½		18	.12½
	18	.03½		19	.10¾
	19	.02½		20	.09
	20	.02½		.....	.....

In ordering, specify galvanized before or after weaving, with size of mesh and gauge of wire: 150 lineal feet to the roll. Stock sizes: Width 12 to 72 inches. Special widths up to 10 feet made without extra charge.

Iron or Steel Wire Cloth, Hardware Grade.

Mesh .....per inch	2	3	4	5	6	7	8	10	12	14	16	18	20
Number	19	21	22	23	24	25	26	28	29	33	34	35	36
Price .....per square foot	.08	.08	.08	.08	.08	.08	.08	.08	.08	.08	.09	.09	.09

Galvanized Poultry Netting Staples.

In 100, 50 and 25 pound kegs and 10 pound boxes. Price on application.

WIRE SPRINGS.

FIG. 1937.

Wire Springs of all kinds. Prices on application.

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STEEL WIRE.

THE W. M. PATTISON SUPPLY CO. 683 CLEVELAND

FULL SIZE OF PLAIN WIRE.	Gauge.	Weight, One Mile, Pounds.	Feet, to Pound.
	1	1121	4.71
	2	968	5.45
	3	833	6.34
	4	707	7.47
	5	599	8.81
	6	514	10.28
	7	439	12.05
	8	367	14.37
	9	306	17.24
	10	255	20.70
	11	202	26.18
	12	154	34.25
	13	118	44.64
	14	89	59.17
	15	72	73.00
	16	55	95.24
	17	41	129.87
	18	31	172.11
	19	24	222.22
	20	17	312.50

FIG. 1938.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

DIFFERENT STANDARDS FOR WIRE GAUGE IN USE IN THE UNITED STATES.

Dimensions of Sizes in Decimal Parts of an Inch.

Number of Wire Gauge.	American or Brown & Sharpe.	Birmingham or Stubs' Wire.	Washburn & Moen M'f'g Co.	Imperial Wire Gauge.	Stubs' Steel Wire.	U. S. Standard for Plate.	Number of Wire Gauge.
000000	.....	....	.....	.464	....	.46875	000000
00000	.....	....	.....	.432	.. ..	.4375	00000
0000	.46	.454	.3938	.400	.....	.40625	0000
000	.40964	.425	.3625	.372	.....	.375	000
00	.3648	.38	.3310	.348	.....	.34375	00
0	.32486	.34	.3065	.324	.....	.3125	0
1	.2893	.3	.2830	.300	.227	.28125	1
2	.25763	.284	.2625	.276	.219	.265625	2
3	.22942	.259	.2437	.252	.212	.25	3
4	.20431	.238	.2253	.232	.207	.234375	4
5	.18194	.22	.2070	.212	.204	.21875	5
6	.16202	.203	.1920	.192	.201	.203125	6
7	.14428	.18	.1770	.176	.199	.1875	7
8	.12849	.165	.1620	.160	.197	.171875	8
9	.11443	.148	.1483	.144	.194	.15625	9
10	.10189	.134	.1350	.128	.191	.140625	10
11	.090742	.12	.1205	.116	.188	.125	11
12	.080808	.109	.1055	.104	.185	.109375	12
13	.071961	.095	.0915	.092	.182	.09375	13
14	.064084	.083	.0800	.080	.180	.078125	14
15	.057068	.072	.0720	.072	.178	.0030125	15
16	.05082	.065	.0625	.064	.175	.0625	16
17	.045257	.058	.0540	.056	.172	.05625	17
18	.040303	.049	.0475	.048	.168	.05	18
19	.03589	.042	.0410	.040	.164	.04375	19
20	.031961	.035	.0348	.036	.161	.0375	20
21	.028462	.032	.03175	.032	.157	.034375	21
22	.025347	.028	.0286	.028	.155	.03125	22
23	.022571	.025	.0258	.024	.153	.028125	23
24	.0201	.022	.0230	.022	.151	.025	24
25	.0179	.02	.0204	.020	.148	.021875	25
26	.01594	.018	.0181	.018	.146	.01875	26
27	.014195	.016	.0173	.0164	.143	.0171875	27
28	.012641	.014	.0162	.0149	.139	.015625	28
29	.011257	.013	.0150	.0136	.134	.0140625	29
30	.010025	.012	.0140	.0124	.127	.0125	30
31	.008928	.01	.0132	.0116	.120	.0109375	31
32	.00795	.009	.0128	.0108	.115	.01015625	32
33	.00708	.008	.0118	.0100	.112	.009375	33
34	.006304	.007	.0104	.0092	.110	.00859375	34
35	.005614	.005	.0095	.0084	.108	.0078125	35
36	.005	.004	.0090	.0076	.106	.00703125	36
37	.004453	....	.....	.0068	.103	.006640625	37
38	.003965	....	.....	.0060	.101	.00625	38
39	.003531	....	.....	.0052	.099	.....	39
40	.003144	....	.....	.0048	.097	.....	40

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

IRON CLASSIFICATION.

Flats.

Size, Inches.	Price, Extra.	Size, Inches.	Price, Extra.
1½ to 4 x ⅜ to 1	Base	4¼ to 6x1⅛ to 1½	.40
1⅛ to 1⅜x ⅜ to 1	.10	4¼ to 6x1⅝ to 2	.60
1 to1 1/16x ⅜ to 7/8	.20	4¼ to 6x2⅛ to 3	.80
¾ to 1 5/16x ⅜ to ¾	.40	6¼ to 8x ⅜ to 1	.60
⅝ to 1 1/16x ⅜ to ⅝	.50	6¼ to 8x1⅛ to 1½	.60
½ to 15/16x ⅜ to ½	.90	6¼ to 8x1⅝ to 2	.80
1⅜ to 4 x1¼ to 1½	.30	6¼ to 8x2⅛ to 3	1.00
2 to 4 x1⅝ to 2	.50	8¼ to 10x ⅜ to 1	.80
2 to 4 x2¼ to 3	.60	8¼ to 10x1⅛ to 1½	.90
4¼ to 6 x ⅜ to 1	.10	8¼ to 10x1⅝ to 2	1.00

Rounds and Squares.

Size, Inches.	Price, Extra.	Size, Inches.	Price, Extra.
1 to 1⅛	Base	¾ to 7/16	.10
2 to 2⅞	.20	⅞ to 1 1/16	.20
3 to 3½	.50	½ to 9/16	.30
3⅝ to 4	.80	7/16 to 15/32	.40
4⅛ to 4½	1.00	⅜ to 13/32	.50
4⅝ to 5	1.30	15/16 to 11/32	.70
5⅛ to 6	1.80	¼ to 9/32	.90
6⅛ to 6½	2.20	7/32	1.40
6⅝ to 7¼	2.50	3/16	2.50
.....	.....	.....	.....

Oval.

Size, Inches.	Price, Extra.	Size, Inches.	Price, Extra.
⅞ to 1½	.40	⅜ to 7/16	1.10
¾ to 1 3/16	.50	½ to 9/16x13/16	1.00
⅝ to 1 1/16	.60	⅝ to 1 1/16x ⅛	1.20
½ to 9/16	.80	.....	.....

Half Oval and Half Round.

Size, Inches.	Price, Extra.	Size, Inches.	Price, Extra.
2½ to 3	.60	½ to 9/16	1.20
⅞ to 2	.50	⅜ to 7/16	2.50
¾ to 1 3/16	.70	1 5/16	3.50
⅝ to 1 1/16	.90	¼	4.50

Half-Oval less than ¼ the width in thickness, extra; For cutting to length 1/16 cent extra.

Heavy Bands.

Size, Inches.	Price, Extra.	Size, Inches.	Price, Extra.	Size, Inches.	Price, Extra.
8½ to 10 x½ to 5/16	.70	1½ to 4 x½ to 5/16	.20	½ to 9/16x¼ to 5/16	1.00
7 to 8 x¼ to 5/16	.70	1 to 1⅜ x½ to 5/16	.30	⅜ to 7/16x¼ to 5/16	1.50
6¼ to 6¾x½ to 5/16	.50	¾ to 1⅛x½ to 5/16	.50	.....	.....
4¼ to 6 x½ to 5/16	.30	⅝ to 1 1/16x½ to 5/16	.80	.....	.....

Heavy Bands 7/32 inch thick 1/16 cent per pound higher than ¼ to 5/16 inches thick.

Light Bands.

Number and Size, Inches.	Price, Extra.	Number and Size, Inches.	Price, Extra.	Number and Size, Inches.	Price, Extra.
7 to 8 x No. 9 to 3/16	.90	1½ to 4 x Nos. 10, 11, 12	.50	9/16 to 5/8 x No. 9 to 3/16	1.00
7 to 8 x Nos. 10, 11, 12	1.00	1 to 1 3/16x No. 9 to 3/16	.50	9/16 to 5/8 x Nos. 10, 11, 12	1.10
6¼ to 6¾x No. 9 to 3/16	.70	1 to 1 3/16x Nos. 10, 11, 12	.60	7/16 to ½ x No. 9 to 3/16	1.30
6¼ to 6¾x Nos. 10, 11, 12	.80	13/16 to ⅞ x No. 9 to 3/16	.60	7/16 to ½ x Nos. 10, 11, 12	1.40
4¼ to 6 x No. 9 to 3/16	.50	13/16 to ⅞ x Nos. 10, 11, 12	.70	⅝ x No. 9 to 3/16	1.50
4¼ to 6 x Nos. 10, 11, 12	.60	1 1/16 to ¾ x No. 9 to 3/16	.80	⅝ x Nos. 10, 11, 12	1.60
1½ to 4 x No. 9 to 3/16	.40	1 1/16 to ¾ x Nos. 10, 11, 12	.90	.....	.....

Bevel Edge Box Iron.

Price, same as Light Bands of same sizes.

Horse Shoe Iron.

Price, all sizes 1 cent extra.

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IRON CLASSIFICATION.

Hexagon Iron and Steel.

Size, Inches.								Price, Extra.
1	1 1/16	1 1/8	1 3/16	1 1/4	1 5/16	1 3/8	1 7/16	Base
.....	1 1/2	1 9/16	1 5/8	1 11/16	1 3/4	1 13/16	1 7/8	Base
3/4	25/32	13/16	27/32	7/8	29/32	15/16	.....	.10
13/16	27/32	7/8	29/32	.....	.....	.....	.....	.20
7/8	29/32	15/16	31/32	.....	.....	.....	.....	.30
15/16	31/32	9/16	1	.....	.....	.....	.....	.40
1 1/16	1 1/32	.....	.....	.....	.....	.....	.....	.50
1 1/8	1 3/32	.....	.....	.....	.....	.....	.....	.70
1 3/16	1 5/32	.....	.....	.....	.....	.....	.....	.90
1 1/4	1 7/32	.....	.....	.....	.....	.....	.....	1.10
2	.....	.....	.....	.....	.....	.....	.....	1.20

Norway and Sweedish Iron.

Rounds and Squares.

Size, Inches.	Price, Extra	Size, Inches.	Price, Extra.
1 to 1 7/8	Base	7/16 to 1/2	.40
2 to 2 7/8	.20	9/16 to 13/32	.50
3 to 3 1/2	.50	5/16 to 1/2	.70
3/4 to 7/8	.10	1/4 to 9/32	.90
5/8 to 1 1/16	.20	.....	.....
1/2 to 9/16	.30	.....	.....

Flats.

Size, Inches.	Price, Extra.	Size, Inches.	Price, Extra.
1 1/2 to 4 x 3/4 to 1	Base	1 1/2 to 4 x 1/4 to 5/16	.20
1 1/8 to 1 3/8 x 1/2 to 1	.10	1 to 1 3/8 x 1/4 to 5/16	.30
1 to 1 1/4 x 1/2 to 3/4	.20	3/4 to 1 1/8 x 1/4 to 5/16	.50
3/4 to 1 1/8 x 3/8 to 3/4	.40	5/8 to 1 1/8 x 1/4 to 5/16	.80
5/8 to 1 1/16 x 3/8 to 3/4	.50	1/2 to 9/16 x 1/4 to 5/16	1.00
1/2 to 9/16 x 3/8 to 1/2	.90	.....	.....

Oval.

Size, Inches.	Price, Extra.	Size, Inches.	Price, Extra.
7/16 to 1 1/2	.40	3/8 to 7/16	1.10
3/4 to 1 3/8	.50	1/2 to 9/16 x 3/16	1.00
5/8 to 1 1/16	.60	5/8 to 1 1/16 x 1/8	1.20
1/2 to 9/16	.80	.....	.....

Half Oval and Half Round.

Size, Inches.	Price, Extra.	Size: Inches.	Price, Extra.
7/16 to 2	.50	3/8 to 7/16	2.50
3/4 to 1 3/8	.70	5/16	3.50
5/8 to 1 1/16	.90	1/4	4.50
1/2 to 9/16	1.20	.....	.....

STEEL CLASSIFICATION.

Rounds and Squares.

Size, Inches.	Price, Extra.	Size, Inches.	Price, Extra.	Size, Inches.	Price, Extra.	Size, Inches.	Price, Extra.
3/4 to 3	Base	5/16	.60	3 9/16 to 4	.50	6 1/8 to 6 1/4	2.00
5/8 to 1 1/16	.10	1/4 and 9/32	.70	4 1/16 to 4 1/2	.60	6 3/8 to 7 1/4	2.50
1/2 to 9/16	.20	7/32	1.00	4 9/16 to 5	.80	.....	.....
7/16	.40	3/16	2.00	5 1/8 to 5 1/2	1.00	.....	.....
3/8	.50	3 1/16 to 3 1/2	.30	5 3/8 to 6	1.50	.....	.....

Flat Bars and Heavy Bands.

Size, Inches.	Price, Extra.	Size, Inches.	Price, Extra.	Size, Inches.	Price, Extra.
1 to 6 x 3/4 to 1	Base	3/16 and 5/8 x 1/4 and 5/16	.70	3/8 x 1/4 and 5/16	1.50
1 to 6 x 1/4 and 5/16	.20	1/2 x 3/8 and 7/16	.90	1 1/8 to 6x1 1/16 to 1 1/16	.10
1 1/8 to 1 1/2 x 3/4 to 3/4	.40	1/2 x 1/4 and 5/16	1.10	1 1/4 to 6x1 1/4 to 1 1/2	.20
1 1/16 to 1 1/2 x 1/4 and 5/16	.50	7/16 x 3/4	1.00	1 3/4 to 6x1 5/8 to 2 3/4	.30
9/16 and 5/8 x 3/4 to 1/2	.50	7/16 x 1/4 and 5/16	1.20	3 1/4 to 6x3 to 4	.40

For intermediate sizes, the next highest extra to be charged.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEEL CLASSIFICATION.

Light Bars and Bands.

Number and Size, Inches.	Price, Extra.	Number and Size, Inches.	Price, Extra.	Number and Sizes, Inches.	Price, Extra.
1 1/2 to 6 x Nos. 7, 8, 9 and 3/16	.40	1 1/16 and 3/4 x Nos. 7, 8, 9 and 3/16	1.00	7/16 x Nos. 7, 8, 9 and 3/16	1.80
1 1/2 to 6 x Nos. 10, 11, 12 & 1/8	.60	1 1/16 and 3/4 x Nos. 10, 11, 12 and 1/8	1.20	7/16 x Nos. 10, 11, 12 and 1/8	2.10
1 to 1 7/16 x Nos. 7, 8, 9 and 3/16	.50	1 9/16 and 5/8 x Nos. 7, 8, 9 and 3/16	1.20	3/8 x Nos. 7, 8, 9 and 1/8	1.90
1 to 1 7/16 x Nos. 10, 11, 12 & 1/8	.70	1 9/16 and 5/8 x Nos. 10, 11, 12 and 1/8	1.30	3/8 x Nos. 10, 11, 12 and 1/8	2.40
13/16 to 1 1/16 x Nos. 7, 8, 9 and 3/16	.70	1/2 x Nos. 7, 8, 9 and 3/16	1.30	.....	.....
13/16 & 1 1/16 x Nos. 10, 11, 12 & 1/8	.80	1/2 x Nos. 10, 11, 12 and 1/8	1.50	.....	.....

For intermediate sizes the next highest extra to be charged.

Ovals.

Size, Inches.	Price, Extra.	Size, Inches.	Price, Extra.
7/16 to 1 1/4	.40	1/2 to 9/16	.80
3/4 to 1 3/16	.50	3/8 to 7/16	1.00
5/8 to 1 1/16	.60	.....	.....

Half Ovals and Half Rounds.

Size, Inches.	Price, Extra.	Size, Inches.	Price, Extra.
7/16 to 2	.50	1/2 to 9/16	.90
3/4 to 1 3/16	.60	3/8 to 7/16	1.10
5/8 to 1 1/16	.70	.....	.....

Open Hearth Spring Steel.

Round.

Size, Inches.	Price, Extra.
5/8 to 1 1/2	Base
1/2 to 9/16	.20
3/4 to 7/16	.50
5/16	1.00
1/4	1.50
.....	.....

Flat.

Number and Size, Inches.	Price, Extra.
1 1/4 to 6 x No. 4 to 1/2	Base
1 and 1 1/8 x No. 1 to 4	.20
1 to 3 x No. 5 to 7	.50
3/4 and 5/16 x No. 1 to 7	.50
3/8 to 1 1/16 x No. 1 to 7	1.00
3/4 to 3 x No. 8 to 10	1.00

Number and Size, Inches.	Price, Extra.
3/4 to 3 x No. 11 to 16	1.50
3/4 to 3 x No. 17 to 20	2.20
3/8 to 5/8 x No. 10 to 16	4.00
3/8 to 5/8 x No. 17 to 20	5.00
3/8 to 5/8 x No. 21 to 24	6.00
.....	.....

Spirals cut to length, 1/10 cent per pound extra.

Spirals cut to length and tapered, 3/10 cent per pound extra.

Flat Spring Steel, cut to length, 24 inches and over, 10 cents per pound extra.

Toe Calk Steel.

Size, Inches.	Price, Extra.	Size, Inches.	Price, Extra.
1/2 x 3/8 and over	Base	5/16 x 1/2 to 1 inclusive	.50
3/16 x 1/4 to 1/2 inclusive	2.00	3/8 x 7/16	.75
3/16 x 5/16 to 1 inclusive	1.00	3/8 square	.75
1/4 x 5/16 to 3/8 inclusive	1.50	5/16 square	1.00
1/4 x 7/16 to 1 inclusive	.75	1/4 square	2.00
5/16 x 3/8 to 7/16 inclusive	.75	.....	.....

Put up in bundles of 100 pounds each.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TOOL STEEL.

Round, Square and Octagon.

Size, Inches.	Price, Extra, Per Lb.	Size, Inches.	Price, Extra, Per Lb.	Size, Inches.	Price, Extra, Per Lb.
$\frac{5}{8}$ to 2	Base	6 $\frac{1}{8}$ to 7	.03	$\frac{1}{4}$ and $\frac{9}{32}$	.03
2 $\frac{1}{8}$ to 3	.01	7 $\frac{1}{8}$ to 8	.03$\frac{1}{2}$	$\frac{3}{16}$ Special Only	.05
3 $\frac{1}{8}$ to 4	.01$\frac{1}{2}$	$\frac{9}{16}$ to $\frac{1}{2}$	.01$\frac{1}{2}$	$\frac{5}{32}$ Special Only	.10
4 $\frac{1}{8}$ to 5	.02	$\frac{7}{16}$ to $\frac{5}{8}$	.01	$\frac{1}{8}$ Special Only	.18
5 $\frac{1}{8}$ to 6	.02$\frac{1}{2}$	$\frac{5}{16}$ and $\frac{11}{32}$	.02	.....	.....

Flat.

$\frac{5}{8}$ to 2 inches thick x $\frac{9}{16}$ to 2 inches wide, Base.

Flat.

Size, Inches.	Price, Extra, Per Pound.	Size, Inches.	Price, Extra, Per Pound.
$\frac{1}{8}$ x $\frac{3}{16}$	.20	$\frac{5}{16}$ x $\frac{3}{8}$ to $\frac{5}{8}$	.01$\frac{1}{2}$
$\frac{1}{8}$ x $\frac{1}{4}$	.15	$\frac{5}{16}$ x $\frac{1}{2}$ to 8	.01
$\frac{1}{8}$ x $\frac{5}{16}$	.08	$\frac{3}{8}$ x $\frac{7}{16}$ to 8	.01
$\frac{1}{8}$ x $\frac{3}{8}$	.04	$\frac{7}{16}$ x $\frac{1}{2}$ to 8	.01
$\frac{1}{8}$ x $\frac{7}{16}$ to $\frac{1}{2}$	.03	$\frac{1}{2}$ x $\frac{9}{16}$ to 8	.01
$\frac{1}{8}$ x $\frac{9}{16}$ to 7	.02	$\frac{9}{16}$ x 2 $\frac{1}{8}$ to 8	.01
$\frac{1}{8}$ x 7 $\frac{1}{8}$ to 8	.03	$\frac{9}{16}$ to 2 x $\frac{5}{8}$ to 2	.00
$\frac{3}{16}$ x $\frac{1}{4}$	.05	$\frac{5}{8}$ to 2 x 2 $\frac{1}{8}$ to 7	.01
$\frac{3}{16}$ x $\frac{5}{16}$	.04	$\frac{5}{8}$ to 1 $\frac{3}{4}$ x 7 $\frac{1}{8}$ to 8	.01
$\frac{3}{16}$ x $\frac{3}{8}$	.03	1 $\frac{7}{8}$ to 2 x 7 $\frac{1}{8}$ to 8	.01$\frac{1}{2}$
$\frac{3}{16}$ x $\frac{7}{16}$ to $\frac{5}{8}$	.02	2 $\frac{1}{8}$ to 3 x 2 $\frac{1}{8}$ to 5	.01
$\frac{3}{16}$ x 1 $\frac{1}{16}$ to 2	.01$\frac{1}{2}$	2 $\frac{1}{8}$ to 3 x 5 $\frac{1}{8}$ to 8	.01$\frac{1}{2}$
$\frac{3}{16}$ x 2 $\frac{1}{8}$ to 7	.01	3 $\frac{1}{8}$ to 4 x 3 $\frac{1}{8}$ to 6	.01$\frac{1}{2}$
$\frac{3}{16}$ x 7 $\frac{1}{8}$ to 8	.02	3 $\frac{1}{8}$ to 4 x 6 $\frac{1}{8}$ to 8	.02
$\frac{1}{4}$ x $\frac{9}{16}$ to $\frac{3}{8}$	.02	4 $\frac{1}{8}$ to 5 x 4 $\frac{1}{8}$ to 7	.02
$\frac{1}{4}$ x $\frac{7}{16}$ to $\frac{5}{8}$	.01$\frac{1}{2}$	4 $\frac{1}{8}$ to 5 x 7 $\frac{1}{8}$ to 8	.02$\frac{1}{2}$
$\frac{1}{4}$ x 1 $\frac{1}{16}$ to 2	.01$\frac{1}{2}$	5 $\frac{1}{8}$ to 6 x 5 $\frac{1}{8}$ to 8	.02$\frac{1}{2}$
$\frac{1}{4}$ x 2 $\frac{1}{8}$ to 7	.01	6 $\frac{1}{8}$ to 7 x 6 $\frac{1}{8}$ to 7	.03
$\frac{1}{4}$ x 7 $\frac{1}{8}$ to 8	.02	6 $\frac{1}{8}$ to 8 x 7 $\frac{1}{8}$ to 8	.03$\frac{1}{2}$

Cutting to multiples or specified lengths, $\frac{1}{2}$ cent per pound, for over 24 inches; under, according to contract but not less than $\frac{1}{2}$ cent per pound.

Special Tool Steel.

We can furnish Special, Crucible and Extra Air Hardening Steel when desired. Prices on application.

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THE WM. M. PATTISON SUPPLY CO. CLEVELAND 689

POLISHED DRILL RODS.

In Lengths of 12 and 36 Inches.

Size Number and Inches.	Decimal Equivalent.	Price Per Pound.	Size Number and Inches.	Decimal Equivalent.	Price Per Pound	Size Number and Inches.	Decimal Equivalent.	Price Per Lb.
1	1.	.50	F	.257	.75	37	.103	.90
1 1/64	.9687	.50	E	.25	.75	38	.101	.90
1 1/32	.9375	.50	1/4	.25	.75	39	.099	1.05
1 3/64	.9062	.50	D	.246	.75	40	.097	1.05
7/8	.875	.50	C	.242	.75	41	.095	1.05
27/32	.8437	.50	B	.238	.75	3/32	.0937	1.05
1 5/64	.8125	.50	15/64	.2343	.75	42	.092	1.05
13/16	.7812	.50	A	.234	.75	43	.088	1.05
3/4	.75	.55	1	.227	.75	44	.085	1.05
23/32	.7187	.55	2	.219	.75	45	.081	1.05
11/16	.6875	.55	7/32	.2187	.75	46	.079	1.05
21/32	.6562	.55	3	.212	.75	5/64	.0781	1.20
5/8	.625	.55	4	.207	.75	47	.077	1.20
19/32	.5937	.55	5	.204	.75	48	.075	1.20
9/16	.5625	.55	13/64	.2031	.75	49	.072	1.20
17/32	.5312	.55	6	.201	.75	50	.069	1.20
1/2	.5	.60	7	.199	.75	51	.066	1.45
31/64	.4843	.60	8	.197	.75	52	.063	1.45
15/32	.4687	.60	9	.194	.75	1/16	.0625	1.45
29/64	.4531	.60	10	.191	.75	53	.058	1.45
7/16	.4375	.60	11	.188	.75	54	.055	1.45
27/64	.4218	.75	3/16	.1875	.75	55	.05	1.80
Z	.413	.75	12	.185	.75	3/64	.0468	1.80
13/32	.4062	.75	13	.182	.75	56	.045	1.80
Y	.404	.75	14	.180	.75	57	.042	1.80
X	.397	.75	15	.178	.75	58	.041	2.10
25/64	.3906	.75	16	.175	.83	59	.04	2.10
W	.386	.75	17	.172	.83	60	.039	2.10
V	.377	.75	11/64	.1718	.83	61	.038	2.40
3/8	.375	.75	18	.168	.83	62	.037	2.40
U	.368	.75	19	.164	.83	63	.036	2.70
23/64	.3593	.75	20	.161	.83	64	.035	2.70
T	.358	.75	21	.157	.83	65	.033	2.70
S	.348	.75	5/32	.1562	.83	66	.032	3.00
11/32	.3437	.75	22	.155	.83	1/32	.0312	3.00
R	.339	.75	23	.153	.83	67	.031	3.00
Q	.332	.75	24	.151	.83	68	.03	3.00
21/64	.3281	.75	25	.148	.83	69	.029	3.30
P	.323	.75	26	.146	.83	70	.027	3.30
O	.316	.75	27	.143	.83	71	.026	3.60
5/16	.3125	.75	9/64	.1406	.83	72	.024	3.60
N	.302	.75	28	.139	.83	73	.023	3.60
19/64	.2968	.75	29	.134	.83	74	.022	3.90
M	.295	.75	30	.127	.83	75	.02	4.05
L	.29	.75	1/8	.125	.83	76	.018	4.20
9/32	.2812	.75	31	.120	.90	77	.016	4.50
K	.281	.75	32	.115	.90	1/64	.0156	4.50
J	.277	.75	33	.112	.90	78	.015	4.80
I	.272	.75	34	.11	.90	79	.014	5.10
H	.266	.75	7/64	.1093	.90	80	.013	5.40
17/64	.2656	.75	35	.108	.90	....	....	.....
G	.261	.75	36	.106	.90	....	....	.....

Square, Hexagon and Octagon, 1.60 per pound.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

WEIGHT OF FLAT BAR IRON.

Per Lineal Foot.

Thickness, Inches.	WIDTH, INCHES.							
	½	⅝	¾	⅞	1	1⅛	1¼	1⅜
⅛	.211	.26	.316	.37	.417	.469	.521	.573
3/16	.361	.42	.471	.551	.625	.703	.781	.859
¼	.422	.51	.633	.73	.833	.938	1.04	1.15
5/16	.491	.64	.79	.915	1.04	1.17	1.3	1.43
⅜	.634	.784	.95	1.09	1.25	1.41	1.56	1.72
7/16	.....	.84	.99	1.25	1.46	1.64	1.82	2.09
½	.....	.9	1.26	1.46	1.67	1.87	2.08	2.29
9/16	.....	.....	1.58	1.82	2.08	2.34	2.6	2.86
⅝	.....	.....	.....	2.19	2.5	2.81	3.13	3.44
11/16	.....	.....	.....	.....	2.92	3.28	3.65	4.01
¾	.....	.....	.....	.....	3.33	3.75	4.17	4.58
13/16	.....	.....	.....	.....	3.75	4.22	4.69	5.16
⅞	.....	.....	.....	.....	4.17	4.69	5.21	5.73
15/16	.....	.....	.....	.....	4.58	5.16	5.73	6.3
1	.....	.....	.....	.....	5.	5.63	6.25	6.88
1 1/16	.....	.....	.....	.....	5.42	6.09	6.77	7.45
1⅛	.....	.....	.....	.....	5.83	6.56	7.29	8.02
1 3/16	.....	.....	.....	.....	6.25	7.03	7.81	8.59
1¼	.....	.....	.....	.....	6.67	7.50	8.33	9.17

Thickness, Inches.	WIDTH, INCHES.							
	1½	1⅝	1¾	1⅞	2	2⅛	2¼	2⅜
⅛	.625	.677	.729	.781	.833	.886	.938	.99
3/16	.938	1.02	1.09	1.17	1.25	1.33	1.41	1.48
¼	1.25	1.36	1.46	1.56	1.67	1.77	1.88	1.98
5/16	1.56	1.69	1.82	1.95	2.08	2.21	2.34	2.47
⅜	1.88	2.03	2.19	2.34	2.5	2.65	2.81	2.97
7/16	2.18	2.37	2.55	2.73	2.92	3.1	3.28	3.46
½	2.5	2.71	2.92	3.12	3.33	3.54	3.75	3.96
9/16	3.13	3.3	3.65	3.91	4.17	4.43	4.65	4.95
⅝	3.75	4.06	4.38	4.69	5.	5.31	5.63	5.94
11/16	4.38	4.74	5.1	5.47	5.83	6.20	6.56	6.93
¾	5.	5.42	5.83	6.25	6.67	7.08	7.5	7.92
13/16	5.63	6.09	6.56	7.03	7.5	7.97	8.44	8.91
⅞	6.25	6.77	7.29	7.81	8.33	8.85	9.38	9.9
15/16	6.88	7.45	8.02	8.59	9.17	9.74	10.31	10.89
1	7.5	8.13	8.75	9.38	10.	10.63	11.25	11.88
1 1/16	8.13	8.8	9.48	10.16	10.83	11.51	12.19	12.86
1⅛	8.75	9.48	10.21	10.94	11.67	12.4	13.13	13.85
1 3/16	9.38	10.16	10.94	11.72	12.5	13.28	14.06	14.84
1¼	10.	10.83	11.67	12.5	13.33	14.17	15.	15.83

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

WEIGHT OF FLAT BAR IRON.

Per Lineal Foot.

Thickness, Inches.	WIDTH, INCHES.							
	2½	2⅝	2¾	2⅞	3	3¼	3½	3¾
1/16	1.04	1.09	1.15	1.2	1.25	1.35	1.46	1.56
1/8	1.56	1.64	1.72	1.8	1.88	2.03	2.19	2.34
3/16	2.08	2.19	2.29	2.4	2.5	2.71	2.92	3.13
1/4	2.60	2.73	2.86	3.	3.13	3.39	3.65	3.91
5/16	3.13	3.28	3.44	3.6	3.75	4.06	4.38	4.69
3/8	3.65	3.83	4.01	4.2	4.38	4.74	5.10	5.47
7/16	4.17	4.38	4.58	4.79	5.	5.42	5.83	6.25
1/2	5.21	5.47	5.73	5.99	6.25	6.77	7.29	7.81
9/16	6.25	6.56	6.88	7.19	7.5	8.13	8.75	9.38
5/8	7.29	7.66	8.02	8.39	8.75	9.48	10.21	10.94
1	8.33	8.75	9.17	9.58	10.	10.83	11.67	12.5
1 1/8	9.38	9.84	10.31	10.78	11.25	12.19	13.13	14.06
1 1/4	10.42	10.94	11.46	11.98	12.5	13.54	14.58	15.63
1 3/8	11.46	12.03	12.6	13.18	13.75	14.9	16.04	17.19
1 1/2	12.5	13.13	13.75	14.38	15.	16.25	17.5	18.75
1 5/8	13.54	14.22	14.9	15.57	16.25	17.6	18.96	20.31
1 3/4	14.58	15.31	16.04	16.77	17.5	18.96	20.42	21.88
1 7/8	15.63	16.41	17.19	17.97	18.75	20.31	21.88	23.44
2	16.67	17.5	18.33	19.17	20.	21.67	23.33	25.

Thickness, Inches.	WIDTH, INCHES.							
	4	4½	5	5½	6	6½	7	8
1/16	1.67	1.88	2.08	2.29	2.5	2.71	2.92	3.33
1/8	2.5	2.81	3.13	3.44	3.75	4.06	4.38	5.
3/16	3.33	3.75	4.17	4.58	5.	5.42	5.83	6.67
1/4	4.17	4.69	5.21	5.73	6.25	6.77	7.29	8.33
5/16	5.	5.63	6.25	6.88	7.5	8.13	8.75	10.
3/8	5.83	6.56	7.29	8.02	8.75	9.48	10.21	11.67
7/16	6.67	7.5	8.33	9.17	10.	10.83	11.67	13.33
1/2	8.33	9.38	10.42	11.46	12.5	13.54	14.58	16.67
9/16	10.	11.25	12.5	13.75	15.	16.25	17.5	20.
5/8	11.67	13.13	14.58	16.04	17.5	18.96	20.42	23.33
1	13.33	15.	16.07	18.33	20.	21.67	23.33	26.67
1 1/8	15.	16.88	18.75	20.63	22.5	24.38	26.25	30.
1 1/4	16.67	18.75	20.83	22.92	25.	27.08	29.17	33.33
1 3/8	18.33	20.63	22.92	25.21	27.5	29.79	32.08	36.67
1 1/2	20.	22.5	25.	27.5	30.	32.5	35.	40.
1 5/8	21.67	24.38	27.08	29.79	32.5	35.21	37.92	43.33
1 3/4	23.33	26.25	29.17	31.25	35.	37.92	40.83	46.67
1 7/8	25.	28.13	31.25	34.38	37.5	40.63	43.75	50.
2	26.67	30.	33.33	36.67	40.	43.33	46.67	53.33

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

WEIGHT OF ROUND AND SQUARE IRON AND STEEL.

Per Lineal Foot.

Size, Inches.	ROUND.		SQUARE.	
	Iron.	Steel.	Iron.	Steel.
1/4	.164	.17	.208	.21
5/16	.256	.26	.326	.33
3/8	.368	.38	.469	.48
7/16	.501	.51	.638	.65
1/2	.654	.67	.833	.85
9/16	.828	.85	1.055	1.08
5/8	1.023	1.04	1.302	1.33
11/16	1.237	1.27	1.576	1.61
3/4	1.473	1.5	1.875	1.92
13/16	1.728	1.76	2.201	2.24
7/8	2.004	2.04	2.552	2.6
15/16	2.301	2.35	2.93	3.06
1	2.618	2.65	3.333	3.4
1 1/8	3.313	3.38	4.219	4.3
1 1/4	4.091	4.17	5.208	5.31
1 3/8	4.95	5.05	6.302	6.43
1 1/2	5.89	6:01	7.5	7.65
1 5/8	6.913	7.05	8.802	8.98
1 3/4	8.018	8.18	10.21	10.4
1 7/8	9.204	9.38	11.72	11.9
2	10.47	10.71	13.33	13.6
2 1/8	11.82	12.05	15.05	15.4
2 1/4	13.25	13.6	16.88	17.2
2 3/8	14.77	15.1	18.8	19.2
2 1/2	16.36	16.68	20.83	21.2
2 5/8	18.04	18.39	22.97	23.5
2 3/4	19.8	20.18	25.21	25.7
2 7/8	21.64	22.06	27.55	28.2
3	23.56	24.1	30.	30.6
3 1/8	25.57	26.12	32.55	33.13
3 1/4	27.65	28.3	35.21	35.9
3 3/8	29.82	30.45	37.97	38.64
3 1/2	32.07	32.7	40.83	41.6
3 5/8	34.4	35.2	43.8	44.57
3 3/4	36.82	37.54	46.88	47.8
4	41.89	42.72	53.33	54.4
4 1/4	47.29	48.3	60.21	61.4
4 1/2	53.01	54.6	67.5	68.9
4 3/4	59.07	60.3	75.21	76.7
5	65.45	66.8	83.33	85.
5 1/4	72.16	73.6	91.88	93.7
5 1/2	79.19	80.8	100.8	102.8
5 3/4	86.56	88.3	110.2	112.4
6	94.25	96.1	120.	122.4

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THE W. M. PATTISON SUPPLY CO. 693 CLEVELAND

WEIGHT OF FLAT BAR STEEL.

Per Lineal Foot.

Thickness, Inches.	WIDTH, INCHES.									
	½	⅝	¾	⅞	1	1⅛	1¼	1⅜	1½	1¾
1/16	.213	.266	.32	.372	.426	.479	.53	.585	.64	.745
1/8	.319	.339	.48	.558	.639	.718	.79	.878	.96	1.12
3/16	.425	.533	.64	.743	.852	.958	1.06	1.17	1.28	1.49
1/4	.531	.665	.8	.929	1.06	1.2	1.33	1.46	1.6	1.86
5/16	.638	.798	.96	1.12	1.28	1.43	1.59	1.75	1.91	2.23
3/8	.744	.931	1.12	1.3	1.49	1.67	1.86	2.05	2.23	2.6
7/16	.....	1.07	1.28	1.49	1.7	1.91	2.13	2.34	2.55	2.98
1/2	.....	1.2	1.44	1.67	1.91	2.15	2.39	2.63	2.87	3.35
9/16	.....	.....	1.6	1.86	2.12	2.39	2.66	2.92	3.19	3.72
5/8	.....	.....	1.76	2.04	2.34	2.63	2.92	3.22	3.51	4.09
11/16	.....	.....	.....	2.23	2.55	2.86	3.19	3.5	3.83	4.46
3/4	.....	.....	.....	2.41	2.76	3.11	3.45	3.8	4.14	4.83
13/16	.....	.....	.....	.....	2.98	3.34	3.72	4.09	4.46	5.21
7/8	.....	.....	.....	.....	3.19	3.59	3.98	4.38	4.78	5.58
1	.....	.....	.....	.....	.....	3.82	4.25	4.68	5.1	5.96
1 1/8	.....	.....	.....	.....	.....	.....	4.78	5.27	5.74	6.71
1 1/4	.....	.....	.....	.....	.....	.....	.....	5.85	6.38	7.45
1 1/2	.....	.....	.....	.....	.....	.....	.....	7.02	7.67	8.94

Thickness, Inches.	WIDTH, INCHES.									
	2	2¼	2½	2¾	3	3½	4	5	6	7
1/16	.85	.955	.107	1.18	1.28	1.49	1.7	2.13	2.56	2.98
1/8	1.28	1.43	1.6	1.76	1.92	2.24	2.55	3.2	3.83	4.47
3/16	1.7	1.91	2.13	2.34	2.56	2.98	3.4	4.26	5.11	5.96
1/4	2.13	2.39	2.66	2.92	3.19	3.72	4.25	5.32	6.38	7.44
5/16	2.55	2.87	3.2	3.51	3.83	4.46	5.1	6.4	7.66	8.92
3/8	2.98	3.35	3.72	4.09	4.46	5.21	5.95	7.44	8.92	10.4
7/16	3.4	3.83	4.26	4.68	5.1	5.96	6.8	8.52	10.2	11.9
1/2	3.83	4.3	4.78	5.26	5.74	6.69	7.65	9.56	11.5	13.4
9/16	4.26	4.79	5.32	5.86	6.39	7.44	8.52	10.64	12.78	14.9
5/8	4.68	5.26	5.84	6.43	7.01	8.18	9.35	11.7	14.	16.4
11/16	5.1	5.74	6.4	7.02	7.65	8.92	10.2	12.8	15.3	17.9
3/4	5.53	6.22	6.91	7.6	8.29	9.67	11.1	13.8	16.6	19.3
13/16	5.96	6.7	7.46	8.19	8.94	10.42	11.92	14.92	17.88	20.8
7/8	6.38	7.17	7.97	8.77	9.56	11.2	12.8	15.9	19.1	22.4
1	6.8	7.66	8.52	9.36	10.2	11.92	13.6	17.04	20.4	23.8
1 1/8	7.65	8.61	9.56	10.54	11.48	13.41	15.3	19.17	22.95	26.8
1 1/4	8.5	9.57	10.65	11.71	12.76	14.90	17.	21.3	25.61	29.76
1 1/2	10.2	11.49	12.78	14.04	15.3	17.88	20.4	25.56	30.6	35.7

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

FIG. 1939.

FIG. 1940.

Rails.

Weight Per Yard, Pounds.	Weight Per Mile, Tons.	Weight Per Yard, Pounds.	Weight Per Mile, Tons.	Weight Per Yard, Pounds.	Weight Per Mile, Tons.
8	$12\frac{1280}{2240}$	50	$78\frac{1280}{2240}$	68	$106\frac{1920}{2240}$
12	$18\frac{1920}{2240}$	52	$81\frac{640}{2240}$	70	110
16	$25\frac{320}{2240}$	56	88	72	$113\frac{320}{2240}$
25	$39\frac{640}{2240}$	57	$89\frac{1280}{2240}$	76	$119\frac{960}{2240}$
30	$47\frac{320}{2240}$	60	$94\frac{640}{2240}$	80	$125\frac{1600}{2240}$
35	55	62	$97\frac{960}{2240}$	85	$133\frac{1280}{2240}$
40	$62\frac{1920}{2240}$	64	$100\frac{1280}{2240}$	90	$141\frac{960}{2240}$
45	$70\frac{1600}{2240}$	65	$102\frac{320}{2240}$	.....	.....

To find the number of tons (of 2240 pounds) per mile of single track multiply the pounds per yard by 11 and divide by 7.

Splice Bars; Single Track.

Length of Rails, Feet.	Number of Joints, Per Mile.	Plates, Per Mile, Pounds.	Bolts, Per Mile, Pounds.	Total Weight Per Mile, Pounds.
18	588	9408	2352	11760
21	528	8448	2112	10560
24	440	7040	1760	8800
25	423	6768	1692	8460
27	391	6256	1664	7820
30	352	5632	1408	7040

Cross Ties.

Number of Ties 18 inches center to center.....per mile	3520
Number of Ties 24 inches center to center.....per mile	2641
Number of Ties 27 inches center to center.....per mile	2348
Number of Ties 30 inches center to center.....per mile	2113
Number of Ties 33 inches center to center.....per mile	1921
Number of Ties 36 inches center to center.....per mile	1761

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THE W. M. PATTISON SUPPLY CO. 695 CLEVELAND

WEIGHTS AND DIMENSIONS OF STANDARD STEEL ANGLES.

Equal Legs.

Dimensions. Inches.	Thickness, Inches.	Weight, Per Foot, Pounds.	Area of Section, Square Inches.	Dimensions. Inches.	Thickness, Inches.	Weight, Per Foot, Pounds.	Area of Section, Square Inches.
¾ x ¾	⅛	.58	.17	3 x 3	¼	4.9	1.44
¾ x ¾	3/16	.84	.25	3 x 3	5/16	6.	1.78
1 x 1	⅛	.8	.23	3 x 3	⅜	7.2	2.11
1 x 1	3/16	1.16	.34	3 x 3	7/16	8.3	2.43
1 x 1	¼	1.49	.44	3 x 3	½	9.4	2.75
1¼ x 1¼	⅛	1.02	.30	3 x 3	9/16	10.4	3.06
1¼ x 1¼	3/16	1.47	.43	3 x 3	⅝	11.4	3.36
1¼ x 1¼	¼	1.91	.56	3½ x 3½	⅜	8.4	2.48
1¼ x 1¼	5/16	2.32	.68	3½ x 3½	7/16	9.8	2.87
1½ x 1½	3/16	1.79	.53	3½ x 3½	½	11.1	3.25
1½ x 1½	¼	2.34	.69	3½ x 3½	9/16	12.3	3.62
1½ x 1½	5/16	2.86	.84	3½ x 3½	⅝	13.5	3.98
1½ x 1½	⅜	3.35	.98	3½ x 3½	11/16	14.8	4.34
				3½ x 3½	¾	15.9	4.69
1¾ x 1¾	3/16	2.11	.62	3½ x 3½	13/16	17.1	5.03
1¾ x 1¾	¼	2.77	.81	4 x 4	5/16	8.2	2.4
1¾ x 1¾	5/16	3.39	1.	4 x 4	⅜	9.7	2.86
1¾ x 1¾	⅜	3.98	1.17	4 x 4	7/16	11.2	3.31
1¾ x 1¾	7/16	4.56	1.34	4 x 4	½	12.8	3.75
2 x 2	3/16	2.43	.71	4 x 4	9/16	14.2	4.18
2 x 2	¼	3.19	.94	4 x 4	⅝	15.7	4.61
2 x 2	5/16	3.92	1.15	4 x 4	11/16	17.1	5.03
2 x 2	⅜	4.62	1.36	4 x 4	¾	18.5	5.44
2 x 2	7/16	5.3	1.56	4 x 4	13/16	19.9	5.84
2½ x 2½	¼	4.	1.19	6 x 6	7/16	17.2	5.06
2½ x 2½	5/16	5.	1.46	6 x 6	½	19.6	5.75
2½ x 2½	⅜	5.9	1.73	6 x 6	9/16	21.9	6.43
2½ x 2½	7/16	6.8	2.	6 x 6	⅝	24.2	7.11
2½ x 2½	½	7.7	2.25	6 x 6	11/16	26.4	7.78
.....	.....	.....	.....	6 x 6	¾	28.7	8.44
.....	.....	.....	.....	6 x 6	13/16	30.9	9.09
.....	.....	.....	.....	6 x 6	⅞	33.1	9.73

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THE W. M. PATTISON SUPPLY CO. 696 CLEVELAND

WEIGHTS AND DIMENSIONS OF STANDARD STEEL ANGLES.

Unequal Legs.

Dimensions. Inches.	Thickness. Inches.	Weight, Per Foot, Pounds.	Area of Section, Square Inches.	Dimensions. Inches.	Thickness. Inches.	Weight, Per Foot, Pounds.	Area of Section, Square Inches.
2½ x 2	3/16	2.8	.81	5 x 3	5/16	8.2	2.4
2½ x 2	1/4	3.6	1.06	5 x 3	3/8	9.7	2.86
2½ x 2	5/16	4.5	1.31	5 x 3	7/16	11.3	3.31
2½ x 2	3/8	5.3	1.55	5 x 3	1/2	12.8	3.75
2½ x 2	7/16	6.	1.78	5 x 3	9/16	14.2	4.18
2½ x 2	1/2	6.8	2.	5 x 3	5/8	15.7	4.61
3 x 2½	1/4	4.5	1.31	5 x 3	11/16	17.1	5.03
3 x 2½	5/16	5.5	1.62	5 x 3	3/4	18.5	5.44
3 x 2½	3/8	6.5	1.92	5 x 3	13/16	19.9	5.84
3 x 2½	7/16	7.5	2.21	5 x 3½	3/8	10.4	3.05
3 x 2½	1/2	8.5	2.5	5 x 3½	7/16	12.	3.53
3 x 2½	9/16	9.4	2.78	5 x 3½	1/2	13.6	4.
3½ x 2½	1/4	4.9	1.44	5 x 3½	9/16	15.2	4.46
3½ x 2½	5/16	6.	1.78	5 x 3½	5/8	16.7	4.92
3½ x 2½	3/8	7.2	2.11	5 x 3½	11/16	18.3	5.37
3½ x 2½	7/16	8.3	2.43	5 x 3½	3/4	19.8	5.81
3½ x 2½	1/2	9.4	2.75	5 x 3½	13/16	21.2	6.25
3½ x 2½	9/16	10.4	3.06	5 x 3½	7/8	22.7	6.67
3½ x 2½	5/8	11.4	3.36	6 x 3½	3/8	11.6	3.42
3½ x 2½	11/16	12.4	3.65	6 x 3½	7/16	13.5	3.96
3½ x 3	5/16	6.6	1.93	6 x 3½	1/2	15.3	4.50
3½ x 3	3/8	7.8	2.3	6 x 3½	9/16	17.1	5.03
3½ x 3	7/16	9.	2.65	6 x 3½	5/8	18.9	5.55
3½ x 3	1/2	10.2	3.	6 x 3½	11/16	20.6	6.06
3½ x 3	9/16	11.4	3.34	6 x 3½	3/4	22.3	6.56
3½ x 3	5/8	12.5	3.67	6 x 3½	13/16	24.	7.06
3½ x 3	11/16	13.6	4.	6 x 3½	7/8	25.7	7.55
3½ x 3	3/4	14.7	4.31	6 x 4	3/8	12.3	3.61
3½ x 3	13/16	15.7	4.62	6 x 4	7/16	14.2	4.18
4 x 3	5/16	7.1	2.09	6 x 4	1/2	16.2	4.75
4 x 3	3/8	8.5	2.48	6 x 4	9/16	18.1	5.31
4 x 3	7/16	9.8	2.87	6 x 4	5/8	19.9	5.86
4 x 3	1/2	11.1	3.25	6 x 4	11/16	21.8	6.4
4 x 3	9/16	12.3	3.62	6 x 4	3/4	23.6	6.94
4 x 3	5/8	13.6	3.98	6 x 4	13/16	25.4	7.46
4 x 3	11/16	14.8	3.34	6 x 4	7/8	27.2	7.98
4 x 3	3/4	15.9	4.69	.....	.....	.....	.....
4 x 3	13/16	17.1	5.03	.....	.....	.....	.....

Standard Angles vary only by 1/16 inch.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 697

WEIGHTS AND DIMENSIONS OF STANDARD STEEL I BEAMS.

Depth of Beam, Inches.	Weight Per Foot, Pounds.	Area of Section, Square Inches.	Thickness of Web, Inches.	Width of Flange, Inches.
3	5.5	1.63	.17	2.33
3	6.5	1.91	.26	2.42
3	7.5	2.21	.36	2.52
4	7.5	2.21	.19	2.66
4	8.5	2.5	.26	2.73
4	9.5	2.79	.34	2.81
4	10.5	3.09	.41	2.88
5	9.75	2.87	.21	3.
5	12.25	3.6	.36	3.15
5	14.75	4.34	.5	3.29
6	12.25	3.61	.23	3.33
6	14.75	4.34	.35	3.45
6	17.25	5.07	.47	3.57
7	15.	4.42	.25	3.66
7	17.5	5.15	.35	3.76
7	20.	5.88	.46	3.87
8	17.75	5.33	.27	4.
8	20.25	5.96	.35	4.08
8	22.75	6.69	.44	4.17
8	25.25	7.43	.53	4.26
9	21.	6.31	.29	4.33
9	25.	7.35	.41	4.45
9	30.	8.82	.57	4.61
9	35.	10.29	.73	4.77
10	25.	7.37	.31	4.66
10	30.	8.82	.45	4.8
10	35.	10.29	.6	4.95
10	40.	11.76	.75	5.1
12	31.5	9.26	.35	5.
12	35.	10.29	.44	5.09
12	40.	11.76	.56	5.21
15	42.	12.48	.41	5.5
15	45.	13.24	.46	5.55
15	50.	14.71	.56	5.65
15	55.	16.18	.66	5.75
15	60.	17.65	.75	5.84
18	55.	15.93	.46	6.
18	60.	17.65	.56	6.1
18	65.	19.12	.64	6.18
18	70.	20.59	.72	6.26
20	65.	19.08	.5	6.25
20	70.	20.59	.58	6.33
20	75.	22.06	.65	6.4
24	80.	23.32	.5	7.
24	85.	25.	.57	7.07
24	90.	26.47	.63	7.13
24	95.	27.94	.69	7.19
24	100.	29.41	.75	7.25

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

WEIGHTS AND DIMENSIONS OF STANDARD CHANNELS.

Depth of Channel, Inches.	Weight Per Foot, Pounds.	Area of Section, Square Inches.	Thickness of Web, Inches.	Width of Flange, Inches.
3	4.	1.19	.17	1.41
3	5.	1.47	.26	1.5
3	6.	1.76	.36	1.6
4	5.25	1.55	.18	1.58
4	6.25	1.84	.25	1.65
4	7.25	2.13	.33	1.73
5	6.5	1.95	.19	1.75
5	9.	2.65	.33	1.89
5	11.5	3.38	.48	2.04
6	8.	2.38	.2	1.92
6	10.5	3.09	.32	2.04
6	13.	3.82	.44	2.16
6	15.5	4.56	.56	2.28
7	9.75	2.85	.21	2.09
7	12.25	3.60	.32	2.2
7	14.75	4.34	.42	2.3
7	17.25	5.07	.53	2.41
7	19.75	5.81	.63	2.51
8	11.25	3.35	.22	2.26
8	13.75	4.04	.31	2.35
8	16.25	4.78	.4	2.44
8	18.75	5.51	.49	2.53
8	21.25	6.25	.58	2.62
9	13.25	3.89	.23	2.43
9	15.	4.41	.29	2.49
9	20.	5.88	.45	2.65
9	25.	7.35	.61	2.81
10	15.	4.46	.24	2.6
10	20.	5.88	.38	2.74
10	25.	7.35	.53	2.89
10	30.	8.82	.68	3.04
10	35.	10.29	.82	3.18
12	20.5	6.03	.28	2.94
12	25.	7.35	.39	3.05
12	30.	8.82	.51	3.17
12	35.	10.29	.64	3.3
12	40.	11.76	.76	3.42
15	33.	9.9	.4	3.4
15	35.	10.29	.43	3.43
15	40.	11.76	.52	3.52
15	45.	13.24	.62	3.62
15	50.	14.71	.72	3.72
15	55.	16.18	.82	3.82

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EMERY, EMERY CLOTH AND SAND PAPER.

Emery.

Number	4 to 46	54 to 180	CF, F, FF
Price, kegs about 350 pounds.....per pound	.05	.05½	.03½
Price, half kegs about 175 pounds.....per pound	.05¼	.05¾	.03¾
Price, quarter kegs about 90 pounds.....per pound	.05½	.06	.04
Price, 10 pound tin cans 10 in case.....per pound	.06½	.07	.06
Price, 10 pound tin cans less than case..per pound	.10	.10	.08
Price, bulk less than keg.....per pound	.12	.12	.10

Corundum.

Number	4 to 46	54 to 180	Flour
Price, kegs about 275 pounds.....per pound	.15	.12	.06
Price, half kegs about 135 pounds..... per pound	.16	.14	.08
Price, quarter kegs about 50 pounds.....per pound	.18	.16	.10
Price, 10 pound cans.....per pound	.20	.18	.12

Emery Paper; Sheets 9 x 11 Inches.

Number	000 to ½	1	1½	2	2½	3
Price.....per ream	8.50	10.00	10.50	11.00	12.50	15.00

Emery Cloth; Sheets 9 x 11 Inches.

Number	Crocus.	FF to ½	1	1½	2	2½	3
Price.....per ream	24.00	24.00	26.00	27.00	28.00	30.00	32.00

Flint or Sand Paper; Sheets 9 x 11 Inches.

Number	000 to ½	1	1½	2	2½	3
Price.....per ream	5.50	6.00	6.50	7.00	7.50	8.50

American Garnet Paper; Sheets 9 x 11 Inches.

Number	000 to ½	1	1½	2	2½	3
Price.....per ream	6.00	6.50	7.00	7.50	8.00	9.00

Flint or Sand Paper in Rolls; 50 Yards Long.

Width.....inches	24	30	36	40	42	48
Price, Nos. 0000 to ½.....per roll	6.00	8.00	10.00	12.00	13.00	15.00
Price, No. 1.....per roll	6.50	8.50	10.50	12.50	13.50	16.50
Price, No. 1½.....per roll	7.00	9.00	11.00	13.00	14.00	17.00
Price, No. 2.....per roll	7.50	9.50	11.50	13.50	14.50	17.50
Price, No. 2½.....per roll	8.00	10.00	12.00	14.00	15.00	18.00
Price, No. 3.....per roll	9.00	11.00	13.00	15.00	16.00	20.00
Price, No. 3½.....per roll	10.00	13.00	15.00	17.00	18.00	23.00
Price, No. 4.....per roll	11.00	15.00	17.00	20.00	21.00	26.00

American Garnet Paper in Rolls; 50 Yards Long.

Width.....inches	24	30	36	40	42	48
Price, Nos. 0000 to ½.....per roll	7.00	9.00	11.00	13.00	15.00	18.00
Price, No. 1.....per roll	7.25	9.50	11.50	13.50	15.50	19.50
Price, No. 1½.....per roll	7.50	10.00	12.00	14.00	16.00	20.00
Price, No. 2.....per roll	8.00	10.50	12.50	14.50	16.50	20.50
Price, No. 2½.....per roll	8.50	11.00	13.00	15.00	17.00	22.00
Price, No. 3.....per roll	9.50	12.00	14.00	16.00	18.00	25.00
Price, No. 3½.....per roll	11.00	14.00	16.00	18.00	20.00	29.00
Price, No. 4.....per roll	12.00	16.00	18.00	21.00	23.00	32.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

EMERY, EMERY CLOTH AND SAND PAPER.

Emery.

Number	4 to 46	54 to 180	FF, F, FF
Price, Kegs, about 350 pounds...per pound	.05	.05½	.03½
Price, Half Kegs, about 175 pounds...per pound	.05½	.05¾	.03¾
Price, Quarter Kegs, about 90 pounds per pound	.05½	.06	.04
Price, 10 pound Tin Cans, 10 in case...per pound	.06½	.07	.06
Price, 10 pound Tin Cans, less than case...per pound	.10	.10	.08
Price, Bulk, less than keg.....per pound	.12	.12	.10

Corundum.

Number	4to46 inclusive	54 to 180 inc.	Flour
Price, Kegs about 275 pounds.....per pound	.15	.12	.06
Price, Half Kegs, about 135 pounds...per pound	.16	.14	.08
Price, Quarter Kegs, about 50 pounds...per pound	.18	.16	.10
Price, 10 pound Cans.....per pound	.20	.18	.12

Emery Paper; Sheets 9 x 11 Inches.

Number	00 to 1½	2	2½	3
Price.....per ream	7.00	8.00	10.00	12.00

Emery Cloth; Sheets 9 x 11 Inches.

Number	FF to 1½	Crocus	2	2½	3
Price.....per ream	20.00	20.00	22.00	26.00	28.00

Flint or Sand Paper; Sheets 9 x 11 Inches.

Number	00 to 1½	2	2½	3
Price.....per ream	5.00	5.50	6.00	6.50

American Garnet Paper; Sheets 9 x 11 Inches.

Number	0 to 1½	2	2½	3
.....	5.50	6.00	6.50	7.00

Flint or Sand Paper in Rolls; 50 Yards Long.

Width.....inches	24	30	36	40
Price, Nos. 00 to 1½.....per roll	5.50	8.00	10.00	12.00
Price, No. 2 .....per roll	6.00	9.00	11.00	13.00
Price, No. 2½.....per roll	6.50	10.00	12.00	14.00
Price, No. 3 .....per roll	7.00	11.00	13.00	15.00
Price, No. 3½.....per roll	8.00	.....	.....	.....

American Garnet Paper in Rolls; 50 Yards Long.

Width .....inches	24	30	36	40	42	48
Price, Nos. 00 to 1½ per roll	6.00	9.00	11 00	13.00	15.00	18.00
Price, No. 2 ..per roll	6.50	10.00	12.00	14.00	16.00	20.00
Price, No. 2½..per roll	7.25	11.00	13.00	15.00	17.00	22.00
Price, No. 3 ..per roll	8.25	12.00	14.00	16.00	18.00	25.00
Price, No. 3½..per roll	9.50	14.00	16.00	18.00	20.00	29.00
Price, No. 4 ..per roll	10.50	16.00	18.00	21.00	23.00	32.00

Flint or Sand Cloth in Rolls; 50 Yards Long, 14 Inches Wide.

Number	00 to 2	2½ to 3
Price.....per roll	10.00	12.50

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POLISHING WHEELS.

Bleached and Unbleached Muslin Polishing Wheels.

Diameter	inches	4	5	6	7	8	9
Pieces	per section	18	18	18	18	18	18
Price	per section	.03	.05	.05½	.09½	.10½	.13
Diameter	inches	10	12	13	14	16	16
Pieces	per section	18	18	18	18	18	18
Price	inches	.16	.23½	.26	.30	.43	.50

Canvas Polishing Wheels.

Diameter, Inches.	THICKNESS, INCHES.						
	1	1½	2	2½	3	3½	4
6	1.00	1.25	1.50	1.75	.....	.....	.....
8	1.75	2.25	2.75	3.25	3.75	.....	.....
10	2.25	2.75	3.25	3.75	4.50	.....	.....
12	2.50	3.50	4.50	5.50	6.50	7.50	8.50
14	3.50	4.75	6.25	7.00	8.25	9.00	10.00
16	4.50	5.75	7.50	8.50	10.50	12.50	14.50
18	5.50	7.00	9.50	11.25	13.00	15.00	18.00
20	6.75	8.50	11.75	14.00	17.00	20.00	24.00

Solid Leather Polishing Wheels.

Diameter, Inches.	THICKNESS, INCHES.						
	¼	½	¾	1	1¼	1½	1¾
3	.35	.45	.70	.90	1.15	1.35	1.55
4	.45	.55	.75	1.10	1.40	1.65	1.95
5	.50	.65	1.00	1.30	1.65	1.95	2.30
6	.60	.75	1.10	1.50	1.90	2.25	2.65
7	.65	.90	1.30	1.75	2.20	2.65	3.10
8	.75	1.00	1.50	2.00	2.50	3.00	3.50
9	.90	1.20	1.75	2.35	2.95	3.50	4.10
10	1.05	1.40	2.05	2.75	3.45	4.15	4.80
12	1.45	1.90	2.80	3.75	4.70	5.65	6.55
14	1.85	2.50	3.75	5.00	6.25	7.50	8.75
16	2.35	3.15	4.70	6.25	7.80	9.40	10.95
18	2.85	3.75	5.65	7.50	9.40	11.25	13.15
20	3.40	4.50	6.75	9.00	11.25	13.50	15.75

Diameter. Inches.	THICKNESS, INCHES.						
	2	2¼	2½	3	3½	4	
3	1.80	2.15	2.25	2.70	3.15	3.60	.....
4	2.20	2.50	2.75	3.30	3.85	4.40	.....
5	2.60	2.95	3.25	3.90	4.55	5.20	.....
6	3.00	3.40	3.75	4.50	5.25	6.00	.....
7	3.50	3.95	4.40	5.25	6.15	7.00	.....
8	4.00	4.50	5.00	6.00	7.00	8.00	.....
9	4.70	5.30	5.90	7.05	8.25	9.40	.....
10	5.50	6.20	6.40	8.25	9.65	11.00	.....
12	7.00	7.95	8.90	10.25	12.15	15.00	.....
14	10.00	11.25	12.50	15.00	17.50	20.00	.....
16	12.50	14.00	15.65	18.75	21.90	25.00	.....
18	15.00	16.90	18.75	22.50	26.25	30.00	.....
20	18.00	20.25	22.50	27.00	31.50	36.00	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

POLISHING WHEELS, ETC.

Wood Polishing Wheels, Leather Covered.

Diameter. Inches.	THICKNESS, INCHES.								
	1	1½	2	2½	2½	2¾	3	3¼	4
8	2.25	2.50	2.80	.....	.....	.....	.....	.....	.....
9	2.50	2.80	3.10	3.25	3.50	.....	.....	.....	.....
10	2.80	3.10	3.25	3.50	3.75	4.00	4.25	4.50	4.90
12	3.00	3.25	3.50	3.75	4.00	4.25	4.50	5.00	5.50
14	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.50	6.00
16	4.00	4.25	4.50	4.75	5.00	5.25	5.50	6.00	6.50
18	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.50	7.00
20	5.00	5.25	5.50	5.75	6.25	6.50	6.75	7.10	7.50
22	5.50	5.75	6.00	6.25	7.00	7.25	7.50	8.00	8.50
24	6.00	6.25	6.50	6.75	8.00	8.40	8.75	9.25	10.00
26	6.50	6.75	7.00	7.25	8.50	8.75	9.00	9.50	10.50
28	7.00	7.25	7.50	7.75	9.00	9.25	9.50	9.75	11.00
30	7.50	7.75	8.00	8.25	9.50	9.75	10.00	10.35	11.50

Double flange, 50 cents extra. Tapered Wheels, 10 per cent extra.

Felt Polishing Wheels.

Price, Standard Wool Felt, any size or thickness.... .....per pound	.90
Price, Gray French Felt, over 6 inches diameter..... ....per pound	1.75
Price, White Spanish Felt over 6 inches diameter.....per pound	2.25

Approximate Weights of Felt Polishing Wheels.

Diameter. Inches.	THICKNESS, INCHES.							
	½	¾	1	1¼	1½	1¾	2	2½
8	8 oz	11 oz	14 oz	1⅛ lb	1⅜ lb	1½ lb	1¾ lb	2⅛ lb
9	10 oz	14 oz	1⅛ lb	1⅜ lb	1⅝ lb	1⅞ lb	2⅛ lb	2⅜ lb
10	14 oz	1 lb	1⅜ lb	1⅞ lb	2⅛ lb	2⅜ lb	2⅞ lb	3⅜ lb
12	1 lb	1½ lb	2⅛ lb	2⅝ lb	3⅛ lb	3⅝ lb	4⅛ lb	4¾ lb
14	....	....	2¾ lb	3⅜ lb	4½ lb	5 lb	5½ lb	6¼ lb
15	....	....	3⅜ lb	4½ lb	5 lb	5¾ lb	6¾ lb	8 lb

Sheet Felt.

Price, Standard Wool Felt Sheets, any size ⅛ and ¼ in. thick...per pound	.90
Price, Gray French; hard, in sheets 18x18 in. 3/16, ¼, ⅜, ½, ⅝, ¾, 1, 1½, 2 in. thick.....per pound	1.75
Price, No. 2 Spanish; hard, in sheets 18x18 in, 3/16, ¼, ⅜, ½, ⅝, ¾ in. thick.....per pound	2.00
Price, No. 1 Spanish; in sheets 18x18 in, 3/16, ¼, ⅜, ½, ⅝, ¾, 1, 1½, 2 in. thick..... ..per pound	3.00

Walrus Leather.

Price, by the hide according to thickness.....per pound	1.00 to 2.00

Walrus Leather Polishing Wheels.

ANY SIZE FROM 2 TO 30 INCHES IN DIAMETER.

Thickness .....inches	½	¾	1	1½
Price..... ..... per pound	1.50	1.75	2.50	3.25

Wheels of two or more pieces cemented together, any thickness, 1.50 per pound.

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PLATERS AND METAL FINISHERS.

Circular Scratch and Satin Finish Brushes.

Diameter, Inches.	Price, 1 Row, Per Dozen.	Price, 2 Row, Per Dozen.	Price, 3 Row, Per Dozen.	Price, 4 Row, Per Dozen.	Price, 5 Row, Per Dozen.
2½	2.50	3.75	5.00	7.00	9.00
3	3.00	4.50	6.00	8.00	10.00
3¼	4.50	7.00	9.00	12.00	15.00
3¾	5.00	8.00	11.00	14.00	18.00
4	6.00	9.00	12.00	16.00	21.00
4¼	6.50	10.50	13.50	18.50	24.00
4½	7.00	11.50	14.50	20.50	27.00
4¾	7.50	12.00	15.00	22.00	29.00
5	8.00	13.00	16.50	24.00	32.00
5½	9.00	15.00	18.50	27.00	36.00
6	10.50	16.50	21.50	30.00	39.00
6½	11.00	19.00	24.00	36.00	42.00
7	12.00	21.00	27.00	40.00	48.00
7½	13.00	24.00	30.00	44.00	54.00
8	14.00	25.00	33.00	48.00	60.00

Polishing Materials.

Price, Crocus .....Per pound	.10	Price, Rouge, Hard & Soft...Per pound	.50
Price, Crocus Composition ....Per pound	.08	Price, Rouge, Jewelers.....Per pound	.35
Price, Pumice Lump, Powdered & Brick...Per lb.	.05	Price, Rouge, Nickel.Per pound	.20
Price, Pumice, Selected.....Per pound	.12	Price, Tripoli, Lump and Powdered...Per pound	.20
Price, Quartz .....Per pound	.....	Price, Tripoli Composition...Per pound	.10
Price, RottenStone, Lump.....Per pound	.15	Price, Vienna Lime...Per pound	.....
Price, Rotten Stone, Powdered..Per pound	.10	.....	.....

CHAMOIS SKINS.

First Quality, Yellow, Double Dressed, Trimmed.

Number	1	2	3	4	5	6	7
Size.....inches	6 x 8	7 x 9	9 x 11	11x13½	12 x 16	13 x 16	13 x 17
Price.....per dozen	.30	.60	1.00	1.50	2.30	2.60	3.00

Number	8	10	12	14	15	16	17
Size .....inches	14 x 18	16 x 21	19 x 25	23 x 26	28 x 32	32 x 37	34 x 40
Price.....per dozen	3.50	4.50	6.00	8.25	12.50	16.00	21.00

Extra Heavy, Buck Color, Single Oil Dressed, Untrimmed.

Number 13 F; O, D 24x26 inches. (Warranted to wash).....per dozen	10.00

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EMERY WHEELS.

REGULAR.

FIG. 1941.

CYLINDER.

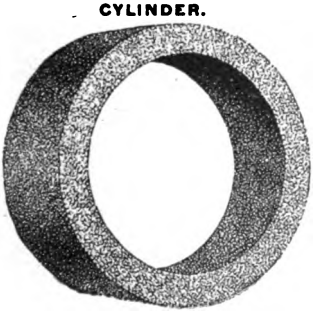

FIG. 1942.

CUP.

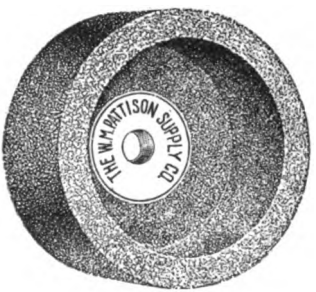

FIG. 1943.

EMERY WHEEL SHAPES.

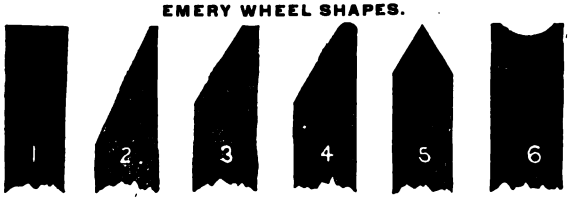

FIG. 1944.

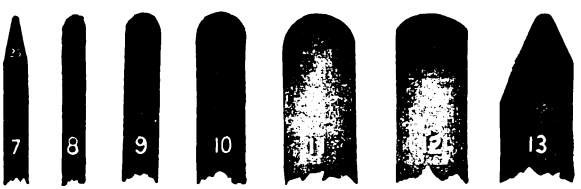

FIG. 1945.

Advise us what you wish to grind and allow us to do the Grading,

For prices, see page 704.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

EMERY WHEELS.

Diameter, Inches.	THICKNESS, INCHES.									Revolutions Per Minute.
	¼	⅜	½	⅝	¾	1	1¼	1½	1¾	
1	.25	.30	.30	.35	.35	.40	.45	.50	.55	18000
1½	.30	.35	.40	.45	.45	.50	.55	.60	.65	14000
2	.35	.45	.50	.55	.55	.60	.65	.70	.75	10000
2½	.40	.55	.65	.70	.75	.85	.95	1.05	1.15	8500
3	.50	.65	.80	.90	.95	1.10	1.25	1.40	1.55	7000
3½	.60	.80	.95	1.05	1.15	1.35	1.55	1.75	1.95	6035
4	.75	.95	1.10	1.25	1.35	1.60	1.85	2.10	2.35	5300
4½	.90	1.10	1.25	1.40	1.55	1.85	2.15	2.45	2.75	4700
5	1.00	1.20	1.40	1.60	1.80	2.20	2.60	3.00	3.40	4200
6	1.40	1.60	1.75	2.10	2.40	3.05	3.70	4.35	5.00	3500
7	1.85	2.00	2.15	2.60	3.00	3.85	4.70	5.55	6.40	3000
8	2.10	2.35	2.60	3.10	3.60	4.60	5.60	6.60	7.60	2600
9	2.50	2.80	3.10	3.70	4.25	5.40	6.55	7.70	8.85	2300
10	3.00	3.35	3.65	4.35	5.00	6.35	7.70	9.05	10.40	2100
12	3.60	3.80	4.00	5.00	6.00	7.40	9.00	10.70	12.75	1750
14	4.05	5.15	6.25	7.35	8.45	10.65	12.85	15.05	17.25	1500
16	.....	.....	.....	.....	10.85	13.70	16.55	19.40	22.25	1300
18	.....	.....	.....	.....	13.25	17.00	20.75	24.50	28.25	1150
20	.....	.....	.....	.....	.....	20.25	24.75	29.25	33.75	1050
22	.....	.....	.....	.....	.....	25.00	31.00	37.00	43.00	950
24	.....	.....	.....	.....	.....	29.00	36.00	43.00	50.00	850
26	.....	.....	.....	.....	.....	.....	43.00	51.00	59.00	775
30	.....	.....	.....	.....	.....	.....	.....	61.00	72.00	705
36	.....	.....	.....	.....	.....	.....	.....	95.00	110.50	520

Diameter, Inches.	THICKNESS, INCHES.									Revolutions Per Minute.
	2	2¼	2½	2¾	3	3¼	3½	4		
1	.60	.65	.70	.75	.80	.85	.90	1.00	.....	18000
1½	.70	.75	.80	.85	.90	.95	1.00	1.10	.....	14000
2	.80	.85	.90	.95	1.00	1.05	1.10	1.20	.....	10000
2½	1.25	1.35	1.45	1.55	1.65	1.75	1.85	2.05	.....	8500
3	1.70	1.85	2.00	2.15	2.30	2.45	2.60	2.90	.....	7000
3½	2.15	2.35	2.55	2.75	2.95	3.15	3.35	3.75	.....	6035
4	2.60	2.85	3.10	3.35	3.60	3.85	4.10	4.60	.....	5300
4½	3.05	3.35	3.65	3.95	4.25	4.55	4.85	5.45	.....	4700
5	3.80	4.20	4.60	5.00	5.40	5.80	6.20	7.00	.....	4200
6	5.65	6.30	6.95	7.60	8.25	8.90	9.55	10.85	.....	3500
7	7.25	8.10	8.95	9.80	10.65	11.50	12.35	14.05	.....	3000
8	8.60	9.60	10.60	11.60	12.60	13.60	14.60	16.60	.....	2600
9	10.00	11.15	12.30	13.45	14.60	15.75	16.90	19.20	.....	2300
10	11.75	13.10	14.45	15.80	17.15	18.50	19.85	22.55	.....	2100
12	14.00	15.70	17.40	19.00	20.75	22.50	24.25	27.50	.....	1750
14	19.45	21.65	23.85	26.05	28.25	30.45	32.65	37.05	.....	1500
16	25.00	27.95	30.80	33.65	36.50	39.35	42.20	47.90	.....	1300
18	32.00	35.75	39.50	43.25	47.00	50.75	54.50	62.00	.....	1150
20	38.25	42.75	47.25	51.75	56.25	60.75	65.25	74.25	.....	1050
22	49.00	55.00	61.00	67.00	73.00	79.00	85.00	97.00	.....	950
24	57.00	64.00	71.00	78.00	85.00	92.00	99.00	113.00	.....	850
26	67.00	75.00	83.00	91.00	99.00	107.00	115.00	131.00	.....	775
30	83.00	94.00	105.00	116.00	127.00	138.00	149.00	171.00	.....	705
36	126.00	141.50	157.00	172.50	188.00	203.50	219.00	250.00	.....	520

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

Diameter, Inches.	THICKNESS, INCHES.							Revolutions, Per Minute.
	1	1½	2	2½	3	3½	4	
8	15.50	....	....	....	....	....	.....	1425
9	16.50	22.00	....	....	....	....	....	1275
10	17.75	24.25	29.50	....	....	....	..... .	1150
12	18.75	26.25	33.00	38.75	44.00	....	....	950
14	22.50	31.00	38.50	45.50	51.50	57.50	61.50	825
16	26.00	35.75	44.60	53.00	60.25	67.60	73.00	725
18	28.80	40.25	51.40	61.40	71.00	79.00	86.90	625
20	30.90	44.00	56.25	67.40	78.50	87.60	97.00	575
22	35.00	49.75	65.00	79.40	91.50	103.90	115.50	525
24	37.50	54.25	70.50	86.25	99.50	113.60	126.60	475
26	39.75	59.80	77.00	93.00	109.25	124.75	139.25	375

Above prices are computed on a basis of Cylinders 7 inches long, other lengths furnished at proportionate prices.

☞ To ascertain the price of Cup Wheels, add to the price of a cylinder of the desired size the price of a regular wheel whose diameter is the same as the inside diameter of the cylinder, and of the thickness required for the back. Cup Wheels smaller in diameter than 8 inches, take the same list price as a regular solid wheel the same diameter and width as such Cup Wheel.

CARBORUNDUM RUB STONES, BRICKS, HONES AND STICKS.

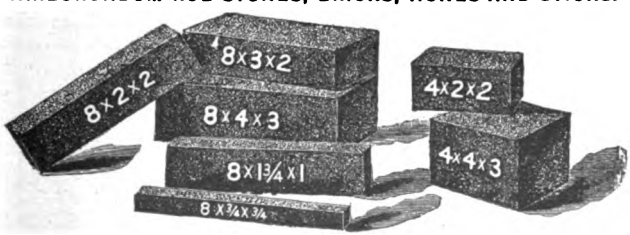

FIG. 1946.

Size....inches	4x2x2	4x3x2	4x3x2½	4x3x3	4x4x3	6x1½x3	7x⅜x⅜	7x½x½
Price....each	.70	1.00	1.30	1.35	2.05	.75	.35	.37
Size....inches	7x⅝x⅝	7x¾x¾	8x1½x¾	8x1¾x1	8x2x1	8x2x1½	8x2x1½	8x2x2
Price.....each	.39	.44	.62	.72	.76	.84	1.00	1.40
Size....inches	8x3x2	8x3x2½	8x3x3	8x4x2	8x4x2½	8x4x3	....	.....
Price.....each	2.00	2.60	3.10	2.70	3.40	4.10	....	.....

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EMERY WHEEL DRESSERS.

STANDARD.

FIG. 1947.

BRISBEN.

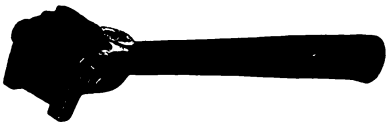

FIG. 1948.

Price, Standard	1.50
Price, Brisben	2.00
Price, Extra cutters for Standard	.50
Price, Extra cutters for Brisben's	.60

BRISBEN CUTTERS.

FIG. 1949.

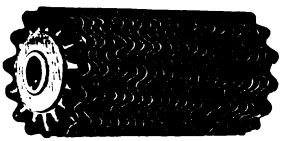

FIG. 1950.

Diameter, 2¼ Inches.

Width.....inches	2	2½	3	3½	4	4½
Price.....each	1.50	1.50	1.75	1.75	2.00	2.50

DIAMOND OR CARBON TOOLS.

HAND.

FIG. 1951.

LATHE.

FIG. 1952.

Price, Hand Tools	each	6.00
Price, Adjustable Hand Tools	each	8.00
Price, Hand and Lathe Tool	each	10.00
Price, Adjustable Holder with one Point	each	18.00

DUST PROTECTORS.

FIG. 1953.

Price	per dozen	24.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 707

GRINDSTONES.

SAMSON.

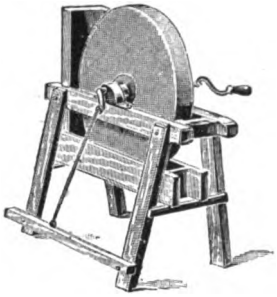

FIG. 1954.

KEYSTONE, IRON FRAME; FOR POWER.

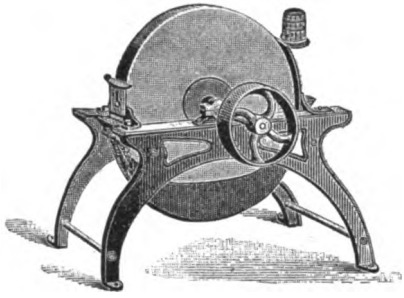

FIG. 1955.

Samson Grindstone.

Number	1	2	3
Thickness.....inches	1¾ to 2½	1¾ to 2½	1¾ to 2½
Weight .....pounds	100 to 110	70 to 80	40 to 50
Price .....each	6.00	5.00	4.50

Keystone Grindstones with Iron Frame; for Power.

Number.	Diameter, Inches.	Thickness, Inches.	Size of Shaft at Bearing, Inches.	Diameter of Pulley, Inches.	Price, Complete, Each.	Price, Frame, Shaft, Pulley and Tool Rest.	Price, Frame Only.
1	50	8	1¾	12	58.00	35.00	24.00
1	50	6	1¾	12	53.00	35.00	24.00
1	48	8	1¾	12	56.00	35.00	24.00
1	48	6	1½	12	48.00	35.00	24.00
1	48	5	1½	12	43.00	35.00	24.00
1	46	6	1½	12	47.00	35.00	24.00
1	46	5	1½	12	42.00	35.00	24.00
2	40	6	1¼	12	38.00	26.00	19.00
2	40	5	1¼	12	35.00	26.00	19.00
2	38	6	1¼	12	36.00	26.00	19.00
2	38	5	1¼	12	34.00	26.00	19.00
2	36	6	1¼	12	35.00	26.00	19.00
2	36	5	1¼	12	33.00	26.00	19.00
2	36	4½	1¼	12	32.00	26.00	19.00
3	30	4½	1	12	26.00	22.00	14.00
3	30	4	1	12	25.50	22.00	14.00
3	30	3½	1	12	25.00	22.00	14.00
3	30	3	1	12	24.50	22.00	14.00

Loose Pulley, 12 inches in diameter 3.00 extra.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

Weights of Ohio Grindstones.

All stones over 200 pounds are sold by measurement weight, less than 200 pounds by cut weight, which is actual weight on scales as they come from the lathe and is always cut on the stone.

Estimated Weight of Stone 140 Pounds Per Cubic Foot.

DIAMETER.		Weight of Stone, One Inch Thick, Pounds.	DIAMETER.		Weight of Stone, One Inch Thick, Pounds.	DIAMETER.		Weight of Stone, One Inch Thick, Pounds.
Feet.	Inches.		Feet.	Inches.		Feet.	Inches.	
2	0	36.650	4	0	146.603	6	0	329.857
2	1	39.768	4	1	152.775	6	1	339.084
2	2	42.913	4	2	159.075	6	2	348.437
2	3	46.386	4	3	165.501	6	3	357.918
2	4	49.885	4	4	172.055	6	4	367.526
2	5	53.512	4	5	178.736	6	5	377.242
2	6	57.267	4	6	185.545	6	6	387.124
2	7	61.148	4	7	192.480	6	7	397.114
2	8	65.157	4	8	199.543	6	8	407.232
2	9	69.293	4	9	206.733	6	9	417.476
2	10	73.556	4	10	214.051	6	10	427.848
2	11	77.946	4	11	221.496	6	11	438.347
3	0	82.464	5	0	229.068	7	0	448.973
3	1	87.119	5	1	236.767	7	1	459.726
3	2	91.881	5	2	244.593	7	2	470.607
3	3	96.782	5	3	252.547	7	3	481.615
3	4	101.808	5	4	260.628	7	4	492.750
3	5	106.962	5	5	268.836	7	5	504.013
3	6	112.243	5	6	277.172	7	6	515.403
3	7	117.651	5	7	285.635	7	7	526.920
3	8	123.187	5	8	294.225	7	8	538.564
3	9	128.850	5	9	302.942	7	9	550.335
3	10	134.641	5	10	311.787	7	10	562.234
3	11	140.558	5	11	320.758	7	11	574.260

To find the weight of Ohio Grindstones multiply the weight given in table by the thickness in inches.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

IRON GRINDSTONE FRAMES.

NO. 1.

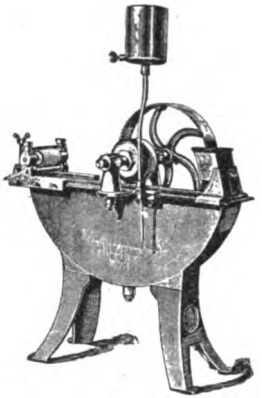

FIG. 1956.

No. 1, With Adjustable Tool Rest, Truing Attachment and Water Pot. Takes Stone 30 Inches in Diameter and 4 Inch Face.

Price	each	18.00
Price, Without Water Pot	each	17.00

NO. 2.

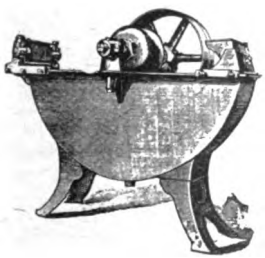

FIG. 1957.

NO. 3.

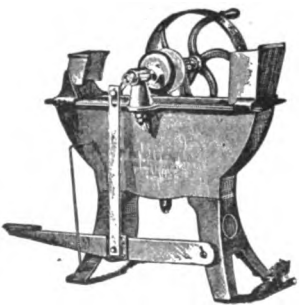

FIG. 1958.

No. 2, With Adjustable Tool Rest and Truing Attachment. Takes Stone 42 Inches in Diameter and 6 Inch Face.

Price	each	50.00

No. 3, With Water Guard and Adjustable Tool Rest. Takes Stone 30 Inches in Diameter and 4 Inch Face.

Price, Without Pulley or Treadle Attachment	each	12.00
Price, Pulleys	each	1.50
Price, Treadles	each	1.50

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

OIL STONES.

SLIPS.

FIG. 1959.

Size	inches	3 to 5 Long, 1¾ to 2 Wide, ⅜ to ⅝ Back, ⅛ to ⅜ Edge
Price, Regular; Arkansas, Soft	Per pound	2.50
Price, Regular; Arkansas, Hard	Per pound	4.00
Price, Washita Extra	Per pound	.80

OIL STONE.

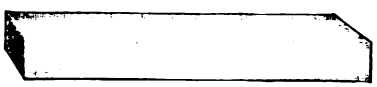

FIG. 1960.

MOUNTED OIL STONE.

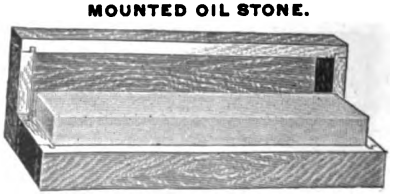

FIG. 1961.

Oil Stones.

Size, A Grade; Arkansas	inches	3 to 5½ Long, 1¾ to 2 Wide, ¾ to 1 Thick
Size, B Grade; Arkansas	inches	5½ to 8 Long, 1¾ to 2 Wide, ¾ to 1 Thick
Price, A Grade; Arkansas	Per pound	2.80
Price, B Grade; Arkansas	Per pound	3.50
Size, Washita Extra	inches	8 Long, 2 Wide, ⅞ to 1⅛ Thick
Price, Washita Extra	Per pound	.50

Mounted Oil Stones.

Size	inches	8 x 2	4 x 1½	5 x 2
Price, No. 1 Arkansas, Mahogany Case	Per dozen	40.00	14.00	.....
Price, Washita Extra, Cherry Case	Per dozen	12.00	.....	9.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

DODGE PATENT INDEPENDENCE WOOD SPLIT PULLEYS.

With Patent Bushing System.

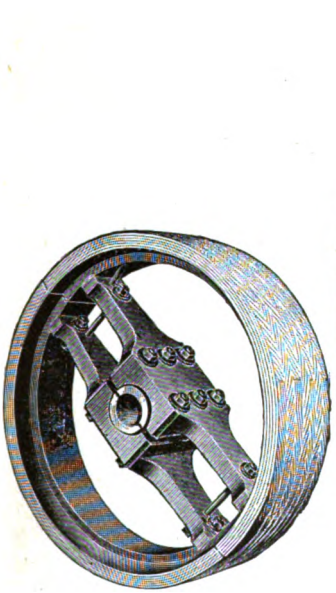

FIG. 1962.

FIG. 1963.

All Pulleys above 36 inches in diameter and for special work are built with four arms as shown in Fig. 1963. For heavy work and when so ordered, Pulleys are bored to fit size of shaft and key-seated, compressing pulley hub on shaft over key, providing a superior and positive shaft fastening.

Electric Pulley Coating.

Packages	Pint	Quart	½ Gallon	Gallon
Price, Sizing	1.00	1.50	2.75	5.00
Price, Coating	.....	1.50	2.75	5.00

Price of prepared cloth cut to width and length of pulley; one cent for each two inches in width, one foot in length. The coating is in a thick paste and is applied on thin open cloth, which is cemented to the pulley by prepared sizing, when dry it forms a hard smooth surface which double grips the belt. It can be applied to iron, steel, wood, paper or leather.

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SPLIT WOOD PULLEYS.

Diameter, Inches.	WIDTH OF FACE, INCHES.										
	3	4	5	6	7	8	9	10	11	12	13
3	1.90	2.00	2.10	2.25	2.40	2.60	2.85	3.10	3.35	3.60	3.85
4	2.00	2.10	2.20	2.40	2.60	2.85	3.10	3.35	3.60	3.85	4.10
5	2.10	2.20	2.40	2.60	2.85	3.10	3.35	3.60	3.85	4.10	4.40
6	2.20	2.35	2.55	2.75	3.00	3.25	3.50	3.75	4.00	4.30	4.65
7	2.30	2.45	2.65	2.85	3.10	3.35	3.60	3.85	4.15	4.50	4.85
8	2.45	2.60	2.80	3.00	3.25	3.50	3.75	4.00	4.30	4.65	5.00
9	2.60	2.80	3.00	3.25	3.50	3.75	4.00	4.30	4.65	5.00	5.40
10	2.80	3.00	3.25	3.50	3.75	4.00	4.30	4.65	5.00	5.40	5.80
11	3.00	3.25	3.50	3.75	4.00	4.30	4.65	5.00	5.40	5.80	6.20
12	3.15	3.40	3.65	3.90	4.20	4.55	4.90	5.30	5.70	6.10	6.50
13	3.30	3.55	3.80	4.10	4.45	4.80	5.20	5.60	6.00	6.40	6.80
14	3.45	3.70	4.00	4.35	4.70	5.10	5.55	6.00	6.45	6.90	7.40
15	3.60	3.90	4.25	4.60	5.00	5.45	5.90	6.35	6.80	7.30	7.80
16	3.80	4.15	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50
17	4.00	4.40	4.90	5.40	5.90	6.40	6.90	7.40	7.90	8.40	8.90
18	4.20	4.70	5.20	5.70	6.20	6.70	7.20	7.80	8.40	9.00	9.60
19	4.40	4.90	5.40	5.90	6.50	7.10	7.70	8.30	8.90	9.50	10.20
20	4.60	5.20	5.80	6.40	7.00	7.60	8.30	9.00	9.70	10.40	11.20
21	4.80	5.40	6.00	6.60	7.30	8.00	8.70	9.40	10.20	11.00	11.80
22	5.00	5.60	6.30	7.00	7.70	8.40	9.20	10.00	10.80	11.70	12.60
23	5.20	5.80	6.50	7.20	8.00	8.80	9.70	10.60	11.50	12.50	13.60
24	5.50	6.20	7.00	7.80	8.60	9.40	10.30	11.20	12.10	13.00	14.10
26	6.20	7.00	7.80	8.60	9.50	10.50	11.50	12.60	13.75	15.00	16.30
28	7.00	7.80	8.60	9.50	10.50	11.60	12.80	14.00	15.20	16.50	17.90
30	7.70	8.60	9.50	10.60	11.80	13.00	14.30	15.60	17.00	18.50	20.00
32	8.50	9.50	10.50	11.60	12.85	14.10	15.50	17.00	18.60	20.30	22.00
33	9.00	10.00	11.15	12.35	13.65	15.00	16.45	18.00	19.65	21.40	23.10
34	9.40	10.60	11.80	13.10	14.45	15.90	17.40	19.00	20.70	22.50	24.20
35	9.85	11.15	12.45	13.85	15.25	16.80	18.35	20.00	21.70	23.50	25.30
36	10.30	11.70	13.10	14.60	16.10	17.70	19.30	21.00	22.00	24.00	26.00
38	.....	12.80	14.40	16.00	17.70	19.50	21.20	23.00	24.50	26.00	28.00
40	.....	13.90	15.70	17.50	19.30	21.25	23.10	25.00	26.50	28.00	30.00
42	.....	15.00	17.00	19.00	21.00	23.00	25.00	27.00	29.00	31.00	33.00
44	.....	17.00	19.00	21.00	23.00	25.00	27.00	29.00	31.00	33.00	35.00
46	.....	19.00	21.00	23.00	25.00	27.00	29.00	31.00	33.00	36.00	38.00
48	.....	21.00	23.00	25.00	27.00	29.00	31.50	33.90	36.20	38.50	40.00
50	.....	.....	25.00	27.00	29.00	31.00	33.70	36.20	38.60	41.00	43.00
52	.....	.....	28.00	30.00	32.00	34.00	36.00	38.50	41.00	43.50	46.00
54	.....	.....	30.00	32.00	34.00	36.00	38.50	41.20	43.80	46.00	49.00
56	.....	.....	.....	35.00	37.00	39.00	41.00	43.00	46.00	49.00	52.00
58	.....	.....	.....	38.00	40.00	42.00	44.00	46.00	49.00	52.00	55.00
60	.....	.....	.....	41.00	43.00	45.00	47.00	49.00	52.00	55.00	58.00
66	.....	.....	.....	48.00	50.00	52.00	54.00	57.00	61.00	64.00	69.00
72	.....	.....	.....	54.00	56.00	58.00	62.00	66.00	70.00	75.00	80.00
78	.....	.....	.....	.....	.....	71.00	75.00	80.00	85.00	90.00	95.00
84	.....	.....	.....	.....	.....	85.00	90.00	96.00	101.00	107.00	112.00
90	.....	.....	.....	.....	.....	100.00	107.00	114.00	121.00	128.00	135.00
96	.....	.....	.....	.....	.....	115.00	123.00	132.00	140.00	149.00	157.00
102	.....	.....	.....	.....	.....	130.00	140.00	150.00	160.00	170.00	180.00
108	.....	.....	.....	.....	.....	145.00	155.00	165.00	175.00	186.00	196.00
114	.....	.....	.....	.....	.....	160.00	170.00	180.00	191.00	202.00	213.00
120	.....	.....	.....	.....	.....	175.00	185.00	195.00	206.00	218.00	230.00

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SPLIT WOOD PULLEYS.

THE W. M. PATTISON SUPPLY CO. CLEVELAND

Diameter, Inches.	WIDTH OF FACE, INCHES.										
	14	15	16	17	18	19	20	21	22	23	24
3	4.10	4.40	4.75	.....	.....	.....	.....	.....	.....	.....	.....
4	4.40	4.75	5.10	.....	.....	.....	.....	.....	.....	.....	.....
5	4.75	5.10	5.45	.....	.....	.....	.....	.....	.....	.....	.....
6	5.00	5.35	5.70	.....	.....	.....	.....	.....	.....	.....	.....
7	5.20	5.55	5.90	.....	.....	.....	.....	.....	.....	.....	.....
8	5.40	5.80	6.20	...	.....	.....	.....	.....	.....	.....	.....
9	5.80	6.20	6.60	.....	.....	.....	.....	.....	.....	.....	.....
10	6.20	6.60	7.00	.....	.....	.....	.....	.....	.....	.....	.....
11	6.60	7.00	7.50	.	.....	.....	.....	.....	.....	.....	.....
12	6.90	7.40	7.90	8.50	9.10	9.70	10.40	11.10	11.80	12.60	13.40
13	7.30	7.80	8.40	9.00	9.60	10.30	11.00	11.70	12.50	13.30	14.10
14	7.90	8.50	9.10	9.70	10.40	11.10	11.80	12.60	13.40	14.20	15.00
15	8.40	9.00	9.60	10.30	11.00	11.80	12.60	13.40	14.20	15.10	16.00
16	9.00	9.60	10.30	11.00	11.80	12.60	13.40	14.20	15.10	16.00	16.90
17	9.50	10.20	11.00	11.80	12.60	13.40	14.20	15.10	16.00	16.90	17.80
18	10.30	11.10	11.90	12.70	13.50	14.30	15.20	16.10	17.00	17.90	19.00
19	11.00	11.80	12.60	13.40	14.30	15.20	16.10	17.00	17.90	19.00	20.10
20	12.00	12.90	13.80	14.70	15.60	16.50	17.50	18.50	19.60	20.70	21.80
21	12.70	13.60	14.50	15.50	16.50	17.50	18.60	19.70	20.80	22.00	23.20
22	13.50	14.50	15.50	16.60	17.70	18.80	20.00	21.20	22.40	23.60	24.80
23	14.70	15.80	17.00	18.20	19.40	20.60	21.80	23.00	24.30	25.60	26.90
24	15.20	16.50	17.70	18.90	20.20	21.50	22.80	24.10	25.40	26.80	28.20
26	17.60	19.00	20.40	21.80	23.30	24.80	26.30	27.90	29.50	31.10	32.70
28	19.40	20.90	22.40	24.00	25.60	27.20	28.80	30.40	32.00	33.60	35.30
30	21.50	23.25	25.00	26.75	28.50	30.25	32.00	33.75	35.50	37.25	39.00
32	23.80	25.60	27.40	29.20	31.00	33.00	35.00	37.00	39.00	41.00	43.00
33	24.95	26.75	28.60	30.40	32.30	34.35	36.40	38.50	40.60	42.70	44.90
34	26.10	27.90	29.80	31.70	33.60	35.70	37.80	40.00	42.20	44.40	46.80
35	27.20	29.10	31.00	32.90	34.90	37.00	39.20	41.50	43.80	46.10	48.70
36	28.00	30.00	32.00	34.00	36.00	38.00	40.00	43.00	45.00	47.00	50.00
38	30.00	32.00	34.00	36.00	38.00	41.00	43.00	46.00	48.00	51.00	54.00
40	32.00	34.00	36.00	39.00	41.00	43.00	46.00	49.00	51.00	54.00	58.00
42	35.00	37.00	39.00	41.00	44.00	46.00	49.00	52.00	55.00	58.00	62.00
44	37.00	40.00	42.00	44.00	47.00	50.00	53.00	56.00	60.00	63.00	67.00
46	40.00	43.00	45.00	48.00	51.00	54.00	57.00	61.00	65.00	68.00	73.00
48	43.00	46.00	48.00	51.00	54.00	58.00	61.00	65.00	70.00	74.00	78.00
50	46.00	49.00	51.00	54.00	58.00	62.00	65.00	70.00	75.00	79.00	84.00
52	49.00	52.00	55.00	58.00	62.00	66.00	70.00	75.00	80.00	85.00	90.00
54	52.00	55.00	59.00	62.00	66.00	70.00	75.00	80.00	85.00	90.00	95.00
56	55.00	59.00	63.00	66.00	71.00	75.00	80.00	85.00	90.00	95.00	101.00
58	59.00	62.00	67.00	71.00	75.00	80.00	85.00	90.00	95.00	101.00	106.00
60	62.00	66.00	71.00	75.00	80.00	85.00	90.00	95.00	100.00	106.00	112.00
66	73.00	78.00	83.00	88.00	93.00	98.00	103.00	109.00	115.00	122.00	129.00
72	85.00	90.00	95.00	100.00	105.00	111.00	117.00	123.00	130.00	138.00	146.00
78	100.00	105.00	110.00	116.00	121.00	127.00	133.00	140.00	147.00	155.00	164.00
84	118.00	123.00	130.00	136.00	143.00	149.00	156.00	163.00	170.00	179.00	188.00
90	142.00	149.00	157.00	165.00	173.00	181.00	189.00	197.00	206.00	215.00	225.00
96	166.00	174.00	184.00	193.00	203.00	212.00	222.00	231.00	241.00	251.00	262.00
102	190.00	200.00	211.00	222.00	233.00	244.00	255.00	266.00	277.00	288.00	299.00
108	207.00	218.00	229.00	241.00	253.00	265.00	277.00	289.00	301.00	314.00	326.00
114	224.00	236.00	248.00	260.00	273.00	286.00	300.00	313.00	326.00	340.00	353.00
120	242.00	254.00	266.00	276.00	293.00	307.00	322.00	337.00	351.00	366.00	380.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

THE DODGE IRON PULLEYS.

Machine Moulded.

Bored, Turned and Balanced; with Set Screws or Key Seats.

PLAIN SOLID PULLEY.

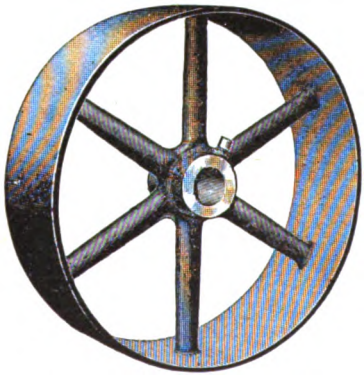

FIG. 1964.

PLAIN SPLIT PULLEY.

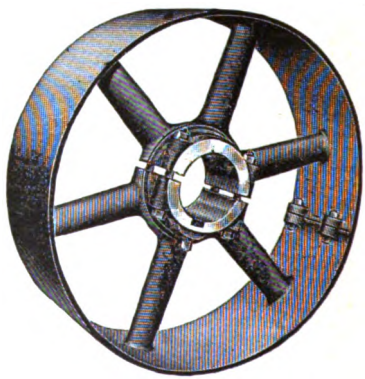

FIG. 1965.

SOLID DOUBLE ARM PULLEY.

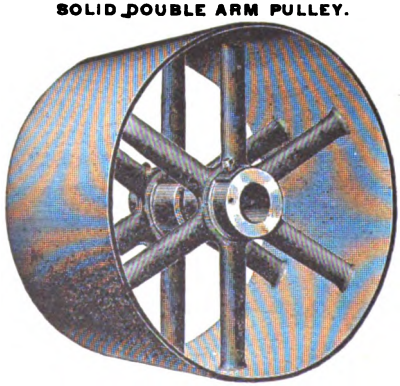

FIG. 1966.

For Prices, see pages 715 to 723.

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SOLID IRON PULLEYS, SINGLE BELT.

THE W. M. PATTISON SUPPLY CO. CLEVELAND.

Diameter, Inches.	WIDTH OF FACE, INCHES.									
	3	4	5	6	7	8	10	12	14	16
6	1.95	2.10	2.30	2.55	.....	.....	.....	.....	.....	.....
7	2.10	2.25	2.50	2.75	.....	.....	.....	.....	.....	.....
8	2.25	2.45	2.70	2.95	3.20	3.45	.....	.....	.....	.....
9	2.40	2.60	2.85	3.15	3.45	3.75	.....	.....	.....	.....
10	2.55	2.75	3.05	3.40	3.70	4.05	4.75	.....	.....	.....
11	2.70	2.95	3.25	3.60	3.95	4.35	5.05	.....	.....	.....
12	2.85	3.15	3.50	3.85	4.20	4.55	5.35	.....	.....	.....
13	3.05	3.35	3.70	4.10	4.45	4.90	5.70	.....	.....	.....
14	3.25	3.55	3.90	4.35	4.70	5.20	6.10	.....	.....	.....
15	3.40	3.75	4.15	4.60	5.05	5.50	6.45	7.50	.....	.....
16	3.60	3.95	4.40	4.90	5.35	5.85	6.85	8.00	.....	.....
17	3.80	4.20	4.70	5.20	5.70	6.20	7.30	8.50	.....	.....
18	4.00	4.45	4.95	5.50	6.05	6.60	7.75	9.10	.....	.....
19	4.25	4.70	5.25	5.85	6.45	7.05	8.30	9.75	.....	.....
20	4.45	4.95	5.55	6.20	6.85	7.50	8.85	10.40	12.40	.....
22	4.90	5.55	6.15	6.90	7.65	8.40	9.95	11.70	14.05	.....
24	5.40	6.10	6.85	7.65	8.45	9.30	11.10	13.15	15.70	.....
26	6.00	6.90	7.65	8.60	9.45	10.55	12.60	15.00	17.65	.....
28	6.75	7.70	8.50	9.50	10.60	11.70	13.10	16.85	19.55	.....
30	7.60	8.55	9.45	10.55	11.75	13.00	15.75	18.60	21.55	.....
32	8.45	9.40	10.45	11.65	12.95	14.40	17.40	20.55	23.70	.....
34	9.40	10.40	11.50	12.90	14.35	15.85	19.10	22.50	25.90	.....
36	10.40	11.40	12.65	14.10	15.70	17.35	20.85	24.50	28.10	.....
38	.....	12.55	13.95	15.60	17.95	20.25	24.85	29.45	34.05	.....
40	.....	13.70	15.30	17.10	18.90	20.80	24.75	28.80	32.90	.....
42	.....	14.90	16.70	18.60	20.55	22.55	26.70	31.00	35.30	.....
44	.....	16.25	18.20	20.25	22.30	24.45	28.80	33.40	37.90	.....
46	.....	17.65	19.70	21.85	24.05	26.35	30.95	35.80	40.60	.....
48	.....	19.00	21.20	23.50	25.85	28.25	33.15	38.20	43.30	.....
50	.....	.....	22.80	25.30	27.75	30.25	35.45	40.80	46.20	52.00
52	.....	.....	24.50	27.10	29.65	32.30	37.75	43.40	49.20	55.30
54	.....	.....	26.20	28.90	31.65	34.40	40.05	46.00	52.20	58.70
56	.....	.....	.....	30.85	33.55	36.30	42.25	48.75	55.40	62.30
58	.....	.....	.....	32.80	35.50	38.35	44.55	51.50	58.60	65.90
60	.....	.....	.....	34.80	37.50	40.35	46.85	54.20	61.80	69.60
62	.....	.....	.....	36.70	39.80	42.85	49.75	57.40	65.40	73.50
64	.....	.....	.....	38.60	41.90	45.35	52.75	60.70	69.10	77.50
66	.....	.....	.....	40.50	44.20	47.95	55.75	64.00	72.70	81.50
68	.....	.....	.....	42.80	46.70	50.60	58.70	67.30	76.30	85.50
70	.....	.....	.....	45.10	49.20	53.30	61.70	70.60	80.05	89.60
72	.....	.....	.....	47.50	51.75	56.00	64.70	74.00	83.75	93.70
74	.....	.....	.....	.....	.....	58.90	68.00	77.60	87.65	98.00
76	.....	.....	.....	.....	.....	61.80	71.30	81.30	91.60	102.30
78	.....	.....	.....	.....	.....	64.75	74.70	85.00	95.65	106.65
80	.....	.....	.....	.....	.....	67.65	78.00	88.60	99.85	111.40
82	.....	.....	.....	.....	.....	70.65	81.30	92.30	104.05	116.20
84	.....	.....	.....	.....	.....	73.65	84.65	96.00	108.35	121.00

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SOLID IRON PULLEYS, DOUBLE BELT.

Diameter, Inches.	WIDTH OF FACE, INCHES.									
	3	4	5	6	7	8	10	12	14	16
6	2.55	2.80	3.10	3.45	3.80	4.15	4.85	5.65	.....	.....
7	2.75	3.00	3.35	3.70	4.05	4.45	5.25	6.10	.....	.....
8	2.95	3.20	3.55	3.95	4.35	4.75	5.70	6.60	7.75	.....
9	3.15	3.45	3.80	4.25	4.65	5.10	6.10	7.10	8.30	.....
10	3.35	3.70	4.10	4.55	5.00	5.50	6.55	7.65	8.90	.....
11	3.55	3.95	4.40	4.90	5.40	5.95	7.05	8.20	9.50	.....
12	3.75	4.20	4.70	5.25	5.80	6.35	7.55	8.75	10.10	.....
13	3.95	4.45	5.00	5.60	6.20	6.80	8.10	9.40	10.85	.....
14	4.20	4.70	5.30	5.95	6.55	7.20	8.60	10.00	11.60	.....
15	4.40	5.00	5.65	6.30	6.95	7.65	9.15	10.70	12.35	.....
16	4.70	5.30	6.00	6.70	7.45	8.20	9.90	11.45	13.25	15.15
17	5.00	5.65	6.40	7.15	7.90	8.75	10.45	12.25	14.15	16.15
18	5.25	5.95	6.75	7.60	8.45	9.30	11.10	13.05	15.10	17.20
19	5.55	6.30	7.15	8.10	9.00	9.95	11.95	14.00	16.25	18.50
20	5.85	6.65	7.55	8.60	9.60	10.60	12.80	15.00	17.40	19.80
22	6.45	7.40	8.45	9.60	10.80	12.00	14.50	17.00	19.70	22.40
24	7.00	8.15	9.35	10.65	12.00	13.40	16.20	19.00	22.00	25.10
26	7.80	9.15	10.45	11.90	13.40	14.90	18.00	21.10	24.55	28.10
28	8.70	10.10	11.55	13.15	14.80	16.40	19.80	23.30	27.10	31.10
30	9.60	11.10	12.70	14.55	16.20	18.00	21.60	25.50	29.70	34.20
32	10.45	12.20	14.10	16.05	17.90	19.85	23.85	28.00	32.65	37.45
34	11.60	13.50	15.50	17.60	19.70	21.70	26.10	30.50	35.60	40.70
36	12.75	14.75	16.95	19.20	21.45	23.10	28.30	33.10	38.55	44.05
38	.....	16.25	18.65	21.05	23.45	25.90	30.80	35.95	41.65	47.65
40	.....	17.75	20.30	22.90	25.50	28.10	33.30	38.75	44.80	50.90
42	.....	19.30	22.05	24.80	27.55	30.30	35.85	41.60	47.95	54.40
44	.....	21.00	23.90	26.85	29.75	32.70	38.65	44.90	51.60	58.50
46	.....	22.75	25.80	28.90	32.00	35.15	41.55	48.20	55.30	62.60
48	.....	24.50	27.70	31.00	34.30	37.65	44.45	51.50	59.00	66.70
50	.....	.....	29.75	33.30	36.80	40.30	47.45	54.80	62.70	70.85
52	.....	.....	31.85	35.65	39.30	43.00	50.50	58.15	66.45	75.05
54	.....	.....	33.95	37.90	41.80	45.70	53.60	61.50	70.25	79.25
56	.....	.....	.....	40.65	44.50	48.50	56.60	65.00	74.35	83.70
58	.....	.....	.....	43.25	47.20	51.30	59.65	68.50	78.45	88.35
60	.....	.....	.....	46.00	50.00	54.10	62.75	72.00	82.55	92.55
62	.....	.....	.....	48.30	52.65	57.10	66.30	76.00	86.60	97.25
64	.....	.....	.....	50.60	55.35	60.10	69.90	80.00	91.35	102.35
66	.....	.....	.....	53.00	58.05	63.15	73.50	84.00	95.75	107.55
68	.....	.....	.....	55.70	60.95	66.25	77.10	88.20	100.25	112.55
70	.....	.....	.....	58.40	63.85	69.25	80.70	92.40	104.85	117.65
72	.....	.....	.....	61.00	66.75	72.55	84.30	96.50	109.45	122.75
74	.....	.....	.....	.....	.....	75.75	85.50	101.00	114.45	128.25
76	.....	.....	.....	.....	.....	79.05	92.70	105.50	119.45	133.75
78	.....	.....	.....	.....	.....	82.35	95.90	110.00	124.50	139.25
80	.....	.....	.....	.....	.....	85.95	99.85	114.30	129.50	144.95
82	.....	.....	.....	.....	.....	89.55	103.85	118.65	134.50	150.65
84	.....	.....	.....	.....	.....	93.25	107.85	123.00	139.60	156.40
90	.....	.....	.....	.....	.....	104.75	121.00	138.00	155.60	173.40
96	.....	.....	.....	.....	.....	117.10	134.75	153.00	172.10	191.75

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

Diameter, Inches.	WIDTH OF FACE, INCHES.								
	18	20	22	24	26	28	30	32	34
18	19.40								
19	20.90								
20	22.40	25.00							
22	25.40	28.30							
24	28.40	31.70							
26	31.80	35.55							
28	35.25	39.45							
30	38.70	43.25							
32	42.30	47.15							
34	45.90	51.65							
36	49.55	55.05	61.55	67.05					
38	53.70	59.80	65.90	72.00					
40	57.50	63.70	69.70	75.90					
42	61.00	67.60	74.30	81.00					
44	65.50	72.50	79.50	86.65					
46	70.00	77.40	84.40	92.30					
48	74.50	82.30	90.10	98.00					
50	79.15	87.40	95.70	104.10					
52	83.80	92.50	101.30	110.30	119.30				
54	88.50	97.70	107.00	116.50	126.00				
56	93.50	103.25	113.10	123.15	133.20				
58	98.50	108.85	119.25	129.80	140.40				
60	103.50	114.45	125.45	136.50	147.65				
62	108.70	120.35	131.85	143.35	155.15				
64	113.85	126.25	138.30	150.90	162.65				
66	119.50	132.15	144.80	157.50	170.20	182.95	195.70		
68	125.10	138.35	151.50	164.90	178.05	191.35	204.60		
70	130.80	144.55	158.25	172.50	185.95	199.75	213.60		
72	136.50	150.60	165.00	179.50	193.85	208.20	222.60		
74	142.50	157.10	172.00	187.00	201.85	216.75	231.70		
76	148.45	163.70	179.00	194.50	209.85	225.35	240.80		
78	154.50	170.30	186.10	202.00	217.95	233.95	249.95		
80	160.80	177.10	193.40	210.00	226.25	242.85	259.35		
82	158.85	183.90	200.70	218.00	234.65	251.75	268.80		
84	173.50	190.75	208.10	225.50	243.05	260.65	278.30		
90	191.50	210.70	230.05	249.50	268.95	288.45	307.95	327.50	347.00
96	212.50	233.00	254.40	276.00	297.00	318.00	339.50	361.00	382.30
98	219.50	240.75	262.70	284.65	306.35	328.00	350.00	372.00	393.00
100	226.50	248.50	270.90	293.95	315.65	338.00	360.50	383.00	404.50

For list of Clamp Hub Pulleys, add one-half the difference between the lists of Solid and Split Pulleys to that of the Solid Pulleys.

For list of Pulleys of fractional diameter, use list of next larger diameter given.

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SPLIT IRON PULLEYS, SINGLE BELT.

Diameter, Inches.	WIDTH OF FACE, INCHES.									
	3	4	5	6	7	8	10	12	14	16
6	3.25	3.85	4.05	4.30	.....	.....	.....	.....	.....	.....
7	3.40	4.00	4.25	4.50	.....	.....	.....	.....	.....	.....
8	3.55	4.20	4.45	4.70	5.35	5.60	.....	.....	.....	.....
9	3.70	4.35	4.60	4.90	5.60	5.90	.....	.....	.....	.....
10	3.85	4.50	4.80	5.15	5.85	6.20	6.90	.....	.....	.....
11	4.20	5.15	5.45	5.80	6.80	7.20	7.90	.....	.....	.....
12	4.35	5.35	5.70	6.05	7.05	7.40	8.20	.....	.....	.....
13	4.55	5.55	5.90	6.30	7.30	7.75	8.55	.....	.....	.....
14	4.75	5.75	6.10	6.55	7.55	8.05	8.95	.....	.....	.....
15	4.90	5.95	6.35	6.80	7.90	8.35	9.30	11.50	.....	.....
16	5.10	6.15	6.60	7.10	8.20	8.70	9.70	12.00	.....	.....
17	5.30	6.40	6.90	7.40	8.55	9.05	10.15	12.50	.....	.....
18	5.50	6.65	7.15	7.70	8.90	9.45	10.60	13.10	.....	.....
19	6.90	7.35	8.65	9.25	10.50	11.10	12.35	15.35	.....	.....
20	7.10	7.60	8.95	9.60	10.90	11.55	12.90	16.00	18.00	.....
22	7.55	8.20	9.55	10.30	11.70	12.45	14.00	17.30	19.65	.....
24	9.00	9.70	11.25	12.05	13.85	14.70	16.50	20.40	22.95	.....
26	9.60	10.50	12.05	13.00	14.85	15.95	18.00	22.25	24.90	.....
28	10.35	11.30	12.90	13.90	16.00	17.10	18.50	24.10	26.80	.....
30	11.20	12.15	13.85	14.95	17.15	18.40	21.15	25.85	28.80	.....
32	12.95	13.90	16.05	17.25	19.70	21.15	24.15	30.35	33.50	.....
34	13.90	14.90	17.10	18.50	21.10	22.60	25.85	32.30	35.70	.....
36	14.90	15.90	18.25	19.70	22.45	24.10	27.60	34.30	37.90	.....
38	.....	19.05	21.45	23.10	27.85	30.15	34.75	42.95	47.55	.....
40	.....	20.20	22.80	24.60	28.80	30.70	34.65	42.30	46.40	.....
42	.....	21.40	24.20	26.10	30.45	32.45	36.60	44.50	48.80	.....
44	.....	22.75	25.70	27.75	32.20	34.35	38.70	46.90	51.40	.....
46	.....	24.15	27.20	29.35	33.95	36.25	40.85	49.30	54.10	.....
48	.....	29.00	31.20	33.50	38.85	41.25	46.15	56.20	61.30	.....
50	.....	.....	32.80	35.30	40.75	43.25	48.45	58.80	64.20	77.00
52	.....	.....	34.50	37.10	42.65	45.30	50.75	61.40	67.20	80.30
54	.....	.....	36.20	38.90	44.65	47.40	53.05	64.00	70.20	83.70
56	.....	.....	.....	40.85	46.55	49.30	55.25	66.75	73.40	87.30
58	.....	.....	.....	42.80	48.50	51.35	57.55	69.50	76.60	90.90
60	.....	.....	.....	44.80	50.50	53.35	59.85	72.20	79.80	94.60
62	.....	.....	.....	56.70	59.80	62.85	69.75	83.40	91.40	108.50
64	.....	.....	.....	58.60	61.90	65.35	72.75	86.70	95.10	112.50
66	.....	.....	.....	60.50	64.20	67.95	75.75	90.00	98.70	116.50
68	.....	.....	.....	62.80	66.70	70.60	78.70	93.30	102.30	120.50
70	.....	.....	.....	65.10	69.20	73.30	81.70	96.60	106.05	124.60
72	.....	.....	.....	67.50	71.75	76.00	84.70	100.00	109.75	128.70
74	.....	.....	.....	.....	.....	78.90	88.00	103.60	113.65	133.00
76	.....	.....	.....	.....	.....	81.80	91.30	107.30	117.60	137.30
78	.....	.....	.....	.....	.....	84.75	94.70	111.00	121.65	141.65
80	.....	.....	.....	.....	.....	87.65	98.00	114.60	125.85	146.40
82	.....	.....	.....	.....	.....	90.65	101.30	118.30	130.05	151.20
84	.....	.....	.....	.....	.....	93.65	104.65	122.00	134.35	156.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SPLIT IRON PULLEYS, DOUBLE BELT.

Diameter, Inches.	WIDTH OF FACE, INCHES.									
	3	4	5	6	7	8	10	12	14	16
6	3.85	4.55	4.85	5.20	5.95	6.30	7.00	8.75	.....	.....
7	4.05	4.75	5.10	5.45	6.20	6.60	7.40	9.20	.....	.....
8	4.25	4.95	5.30	5.70	6.50	6.90	7.85	9.70	10.85	.....
9	4.45	5.20	5.55	6.00	6.80	7.25	8.25	10.20	11.40	.....
10	4.65	5.45	5.85	6.30	7.15	7.65	8.70	10.75	12.00	.....
11	5.05	6.15	6.60	7.10	8.25	8.80	9.90	12.20	13.50	.....
12	5.25	6.40	6.90	7.45	8.65	9.20	10.40	12.75	14.10	.....
13	5.45	6.65	7.20	7.80	9.05	9.65	10.95	13.40	14.85	.....
14	5.70	6.90	7.50	8.15	9.40	10.05	11.45	14.00	15.60	.....
15	5.90	7.20	7.85	8.50	9.80	10.50	12.00	14.70	16.35	.....
16	6.20	7.50	8.20	8.90	10.30	11.05	12.75	15.45	17.25	20.40
17	6.50	7.85	8.60	9.35	10.75	11.60	13.30	16.25	18.15	21.40
18	6.75	8.15	8.95	9.80	11.30	12.15	13.95	17.05	19.10	22.45
19	8.20	8.95	10.55	11.50	13.05	14.00	16.00	19.60	21.85	25.80
20	8.50	9.30	10.95	12.00	13.65	14.65	16.85	20.60	23.00	27.10
22	9.10	10.05	11.85	13.00	14.85	16.05	18.55	22.60	25.30	29.70
24	10.60	11.75	13.75	15.05	17.40	18.80	21.60	26.25	29.25	35.10
26	11.40	12.75	14.85	16.30	18.80	20.30	23.40	28.35	31.80	38.10
28	12.30	13.70	15.95	17.55	20.20	21.80	25.20	30.55	34.35	41.10
30	13.20	14.70	17.10	18.95	21.60	23.40	27.00	32.75	36.95	44.20
32	14.95	16.70	19.70	21.65	24.65	26.60	30.60	37.80	42.45	50.45
34	16.10	18.00	21.10	23.20	26.45	28.45	32.85	40.30	45.40	53.70
36	17.25	19.25	22.55	24.80	28.20	29.85	35.05	42.90	48.35	57.05
38	.....	22.75	26.15	28.55	33.35	35.80	40.70	49.45	55.15	65.65
40	.....	24.25	27.80	30.40	35.40	38.00	43.20	52.25	58.30	68.90
42	.....	25.80	29.55	32.30	37.45	40.20	45.75	55.10	61.45	72.40
44	.....	27.50	31.40	34.35	39.65	42.60	48.55	58.40	65.10	76.50
46	.....	29.25	33.30	36.40	41.90	45.05	51.45	61.70	68.80	80.60
48	.....	34.50	37.70	41.00	47.30	50.65	57.45	69.50	77.00	91.70
50	.....	.....	39.75	43.30	49.80	53.30	60.45	72.80	80.70	95.85
52	.....	.....	41.85	45.65	52.30	56.00	63.50	76.15	84.45	100.05
54	.....	.....	43.95	47.90	54.80	58.70	66.60	79.50	88.25	104.25
56	.....	.....	.....	50.65	57.50	61.50	69.60	83.00	92.35	108.70
58	.....	.....	.....	53.25	60.20	64.30	72.65	86.50	96.45	113.35
60	.....	.....	.....	56.00	63.00	67.10	75.75	90.00	100.55	117.55
62	.....	.....	.....	68.30	72.65	77.10	86.30	102.00	112.60	132.25
64	.....	.....	.....	70.60	75.35	80.10	89.90	106.00	117.35	137.35
66	.....	.....	.....	73.00	78.05	83.15	93.50	110.00	121.75	142.55
68	.....	.....	.....	75.70	80.95	86.25	97.10	114.20	126.25	147.55
70	.....	.....	.....	78.40	83.85	89.25	100.70	118.40	130.85	152.65
72	.....	.....	.....	81.00	86.75	92.55	104.30	122.50	135.45	157.75
74	.....	.....	.....	.....	.....	95.75	105.50	127.00	140.45	163.25
76	.....	.....	.....	.....	.....	99.05	112.70	131.50	145.45	168.75
78	.....	.....	.....	.....	.....	102.35	115.90	136.00	150.50	174.25
80	.....	.....	.....	.....	.....	105.95	119.85	140.30	155.50	179.95
82	.....	.....	.....	.....	.....	109.55	123.85	144.65	160.50	185.65
84	.....	.....	.....	.....	.....	113.25	127.85	149.00	165.60	191.40
90	.....	.....	.....	.....	.....	142.75	159.00	176.00	193.60	226.90
96	.....	.....	.....	.....	.....	155.10	172.75	191.00	210.10	245.25

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SPLIT IRON PULLEYS, DOUBLE BELT.

Diameter, Inches.	WIDTH OF FACE, INCHES.								
	18	20	22	24	26	28	30	32	34
18	24.65								
19	28.20								
20	29.70	32.30							
22	32.70	35.60							
24	38.40	41.70							
26	41.80	45.55							
28	45.25	49.45							
30	48.70	53.25							
32	55.30	60.15							
34	58.90	64.65							
36	62.55	68.05	80.55	86.05					
38	71.70	77.80	92.90	99.00					
40	75.50	81.70	96.70	102.90					
42	79.00	85.60	101.30	108.00					
44	83.50	90.50	106.50	113.65					
46	88.00	95.40	111.40	119.30					
48	99.50	107.30	124.60	132.50					
50	104.15	112.40	130.20	138.60					
52	108.80	117.50	135.80	144.80	153.80				
54	113.50	122.70	141.50	151.00	160.50				
56	118.50	128.25	147.60	157.65	167.70				
58	123.50	133.85	153.75	164.30	174.90				
60	128.50	139.45	159.95	171.00	182.15				
62	143.70	155.35	179.85	191.35	203.15				
64	148.85	161.25	186.30	198.90	210.65				
66	154.50	167.15	192.80	205.50	218.20	230.95	243.70		
68	160.10	173.35	199.50	212.90	226.05	239.35	252.60		
70	165.80	179.55	206.25	220.50	233.95	247.75	261.60		
72	171.50	185.60	213.00	227.50	241.85	256.20	270.60		
74	177.50	192.10	220.00	235.00	249.85	264.75	279.70		
76	183.45	198.70	227.00	242.50	257.85	273.35	288.80		
78	189.50	205.30	234.10	250.00	265.95	281.95	297.95		
80	195.80	212.10	241.40	258.00	274.25	290.85	307.35		
82	193.85	218.90	248.70	266.00	282.65	299.75	316.80		
84	208.50	225.75	256.10	273.50	291.05	308.65	326.30		
90	245.00	264.20	300.05	319.50	338.95	358.45	377.95	417.50	437.00
96	266.00	286.50	324.40	346.00	367.00	388.00	409.50	451.00	472.30
98	373.00	294.25	332.70	354.65	376.35	398.00	420.00	462.00	483.00
100	280.00	302.00	340.90	363.95	385.65	408.00	430.50	473.00	494.50

For list of Clamp Hub Pulleys, add one-half the difference between the list of Solid and Split Pulleys to that of the Solid Pulleys.

For List of Pulleys of Fractional Diameter, use List of next larger diameter given.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SOLID IRON PULLEYS, DOUBLE ARM, DOUBLE BELT.

Diameter, Inches.	WIDTH OF FACE, INCHES.									
	24	26	28	30	32	34	36	40	42	48
24	45.00	49.10	53.60	58.35	.....	.....	.....	.....	.....	.....
26	50.00	54.60	59.25	63.85	.....	.....	.....	.....	.....	.....
28	55.10	60.00	65.00	70.05	.....	.....	.....	.....	.....	.....
30	60.25	65.45	70.70	76.00	.....	.....	.....	.....	.....	.....
32	65.35	70.90	76.75	82.40	88.15	.....	.....	.....	.....	.....
34	70.50	76.45	82.55	88.70	94.90	.....	.....	.....	.....	.....
36	75.70	82.00	88.45	94.95	101.55	108.25	115.00	.....	.....	.....
38	81.45	88.25	95.15	102.05	109.00	115.95	123.00	.....	.....	.....
40	87.30	94.55	101.90	109.10	116.60	124.00	131.35	146.20	.....	.....
42	93.15	100.85	108.60	116.40	124.20	132.00	139.80	155.40	.....	.....
44	99.65	107.85	115.10	124.45	132.80	141.10	149.40	166.15	.....	.....
46	106.15	114.90	123.70	132.50	141.45	150.30	159.15	177.00	.....	.....
48	112.70	121.90	131.25	140.65	150.05	159.50	168.95	187.80	.....	.....
50	119.90	129.50	139.45	149.40	159.35	169.50	179.50	199.85	.....	.....
52	126.85	137.20	147.65	158.20	168.80	179.50	190.10	211.70	.....	.....
54	133.95	144.90	155.95	167.10	178.25	189.40	200.65	224.35	237.50	.....
56	141.60	153.20	164.70	176.50	188.25	200.00	212.00	236.00	248.50	.....
58	149.25	161.45	173.55	185.95	198.25	210.35	222.50	247.25	259.60	.....
60	157.00	169.80	182.60	195.40	208.20	221.00	233.80	259.40	272.25	311.45
62	164.00	177.80	191.60	205.40	219.20	233.00	246.80	273.40	287.20	328.60
64	173.35	187.05	201.15	215.20	228.25	243.25	257.35	285.30	299.25	341.10
66	181.10	195.70	210.40	225.05	239.80	254.50	269.20	298.65	313.35	357.45
68	189.75	204.75	220.05	235.30	250.70	266.00	281.30	312.00	327.30	373.20
70	198.00	213.85	229.70	245.65	261.60	277.50	293.40	325.35	341.25	388.95
72	207.40	222.90	239.45	256.00	272.55	289.10	305.65	338.80	355.35	405.00
74	215.05	232.10	249.25	266.45	283.60	300.85	317.95	352.30	369.50	421.10
76	223.70	241.30	259.15	276.90	294.75	312.55	330.30	366.00	384.00	438.00
78	232.30	250.65	269.05	287.45	305.90	324.30	342.70	379.50	397.90	453.20
80	241.50	260.20	279.30	298.25	317.40	336.35	355.45	393.55	412.65	469.85
82	250.70	269.85	289.50	309.10	328.90	348.55	368.20	407.65	427.30	486.25
84	259.30	279.50	299.75	320.05	340.40	360.75	381.10	423.60	444.55	507.40
86	268.55	289.45	310.40	331.40	352.50	373.50	394.50	437.85	459.25	523.45
88	277.75	299.40	321.05	342.80	364.60	386.30	408.00	452.10	474.00	539.68
90	286.95	309.30	331.70	354.15	376.65	399.05	421.50	466.30	488.70	555.90
92	297.10	320.05	343.00	366.25	389.80	412.60	435.70	481.95	505.10	574.80
94	307.25	330.80	354.35	378.35	390.40	402.45	449.95	497.55	521.35	592.80
96	317.40	341.55	365.70	390.45	415.25	439.65	464.15	513.15	537.70	611.65
98	327.35	352.25	377.20	402.15	427.80	452.95	478.20	528.45	553.70	629.75
100	338.35	364.00	389.20	414.35	440.45	466.30	492.25	543.90	569.85	648.00
102	347.30	373.70	400.15	426.60	453.10	479.65	506.25	559.35	585.95	665.95
104	357.65	384.55	411.55	438.60	465.75	492.85	520.05	574.30	601.45	683.25
106	368.00	395.40	423.00	450.65	478.40	506.10	533.85	589.25	617.00	700.60
108	378.35	406.35	434.35	462.70	491.05	519.35	547.65	604.20	632.55	717.90
110	388.70	417.40	449.60	475.30	504.45	533.55	562.60	620.70	649.80	737.45
114	409.40	439.60	470.00	500.60	531.30	562.00	592.50	653.70	684.35	776.60
120	439.90	473.40	505.10	537.75	570.40	603.10	635.70	701.00	733.65	831.90
126	470.60	486.90	541.20	569.25	610.10	645.10	680.10	750.10	783.00	881.00
132	501.40	538.20	575.30	612.50	649.75	687.10	725.50	799.25	833.00	937.00
138	533.50	571.60	610.90	650.00	689.40	728.80	768.20	847.00	883.00	993.00
144	563.50	604.90	646.30	687.70	729.10	770.50	811.90	894.70	933.00	1049.00

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SPLIT IRON PULLEYS, DOUBLE ARM, DOUBLE BELT.

Diameter, Inches.	WIDTH OF FACE, INCHES.									
	24	26	28	30	32	34	36	40	42	48
24	59.00	63.10	67.60	72.35	.....	.....	.....	.....	.....	.....
26	64.00	68.60	73.25	77.85	.....	.....	.....	.....	.....	.....
28	69.10	74.00	79.00	84.05	.....	.....	.....	.....	.....	.....
30	74.25	79.45	84.70	90.00	.....	.....	.....	.....	.....	.....
32	84.35	89.90	95.75	101.40	108.00	.....	.....	.....	.....	.....
34	89.50	95.45	101.55	107.70	115.00	.....	.....	.....	.....	.....
36	94.70	101.00	107.45	113.95	120.55	127.25	134.00	.....	.....	.....
38	108.45	115.25	122.15	129.05	146.00	152.95	160.00	.....	.....	.....
40	114.30	121.55	128.90	136.10	153.60	161.00	168.35	183.20	.....	.....
42	120.15	127.85	135.60	143.40	161.20	169.00	176.80	192.40	.....	.....
44	126.65	134.85	142.10	151.45	169.80	178.10	186.40	203.15	.....	.....
46	133.15	141.90	150.70	159.50	178.45	187.30	196.15	214.00	.....	.....
48	147.20	156.40	165.75	175.15	198.05	207.50	216.95	235.80	.....	.....
50	154.40	164.00	173.95	183.90	207.35	217.50	227.50	247.85	.....	.....
52	161.35	171.70	182.15	192.70	216.80	227.50	238.10	259.70	285.50	.....
54	168.45	179.40	190.45	201.60	226.25	237.40	248.65	272.35	300.50	.....
56	176.10	187.70	199.20	211.00	236.25	248.00	260.00	284.00	311.50	.....
58	183.75	195.95	208.05	220.45	246.25	258.35	270.50	295.25	322.60	335.10
60	191.50	204.30	217.10	229.90	256.20	269.00	281.80	307.40	335.25	374.45
62	212.00	225.80	239.60	253.40	283.20	297.10	310.80	337.40	369.20	410.60
64	221.55	235.05	249.15	263.20	292.25	307.25	321.35	349.30	381.25	423.10
66	229.10	243.70	258.40	273.05	303.80	318.50	333.20	362.65	395.35	439.45
68	237.75	252.75	268.05	283.30	314.70	330.00	345.30	376.00	409.30	455.20
70	246.00	261.85	277.70	293.65	325.60	341.50	357.40	389.35	423.25	470.95
72	255.40	270.90	287.45	304.00	336.55	353.10	369.65	402.80	437.35	487.00
74	263.05	280.10	297.25	314.45	347.60	364.85	381.95	416.30	451.50	503.10
76	271.70	289.30	307.15	324.90	358.75	376.55	394.30	430.00	466.00	520.00
78	280.30	298.65	317.05	335.45	369.90	388.30	406.70	443.50	479.90	535.20
80	289.50	308.20	327.30	346.25	381.40	400.35	419.45	457.55	494.65	551.85
82	298.70	317.85	337.50	357.10	392.90	412.55	432.20	471.65	509.30	568.25
84	307.30	327.50	347.75	368.05	404.40	424.75	445.10	487.60	526.55	589.40
86	338.55	359.45	380.40	401.40	442.50	463.50	484.50	527.85	574.25	638.45
88	347.75	369.40	391.05	412.80	454.60	476.30	498.00	542.10	589.00	676.68
90	356.95	379.30	401.70	424.15	466.65	489.05	511.50	556.30	603.70	670.90
92	367.10	390.05	413.00	436.25	479.80	502.60	525.70	571.95	620.10	689.80
94	377.25	400.80	424.35	448.35	480.40	492.45	539.95	587.55	636.35	707.80
96	387.40	411.55	435.70	460.45	505.25	529.65	554.15	603.15	652.70	726.65
98	397.35	422.25	447.20	472.15	517.80	542.95	568.20	618.45	678.70	744.75
100	408.35	434.00	459.20	484.35	530.45	556.30	582.25	633.90	684.85	763.00
102	417.30	443.70	470.15	496.60	543.10	569.65	596.25	649.35	700.95	780.95
104	427.65	454.55	481.55	508.60	555.75	582.85	610.05	664.30	716.45	798.25
106	438.00	465.40	493.00	520.65	568.40	596.10	623.85	679.25	732.00	815.60
108	448.35	476.35	504.45	532.70	581.05	609.35	637.65	694.20	747.55	832.90
110	458.70	487.40	519.60	545.30	594.45	623.55	652.60	710.70	764.80	852.45
114	479.40	509.60	540.00	570.60	621.30	652.00	682.50	743.70	799.35	891.60
120	509.90	543.40	575.10	607.75	660.40	693.10	725.70	791.00	848.65	946.90
126	566.60	582.90	637.20	665.25	734.10	769.10	804.10	874.10	958.00	1056.00
132	597.40	634.20	671.30	708.50	773.75	811.10	849.50	923.25	1008.00	1112.00
138	629.50	667.60	706.90	746.00	813.40	852.80	892.20	971.00	1058.00	1168.00
144	659.50	700.90	742.30	783.70	853.10	894.50	935.90	1018.70	1108.00	1224.00

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THE W. M. PATTISON SUPPLY CO. 723 CLEVELAND

Additional Prices to be Added to List for Tight and Loose and Finished Flanged Iron Pulleys.

Diameter, Inches.	Price, Tight and Loose Pulleys, Additional Per Pair.	Price, Flanged Pulleys, Additional Each.	Diameter, Inches.	Price, Tight and Loose Pulleys, Additional Per Pair.	Price, Flanged Pulleys, Additional Each.
6 to 8	1.60	4.65	49 to 52	9.30	33.00
9 to 10	1.95	5.20	53 to 56	10.00	36.30
11 to 12	2.30	5.75	57 to 60	10.70	40.70
13 to 14	2.65	6.30	61 to 66	11.70	46.20
15 to 16	3.00	7.15	67 to 72	12.70	51.70
17 to 18	3.30	8.00	73 to 78	13.70	57.20
19 to 20	3.70	8.80	79 to 84	14.70	62.70
21 to 22	4.05	9.90	85 to 90	15.70	68.20
23 to 24	4.40	11.00	91 to 96	16.70	73.70
25 to 26	4.75	12.10	97 to 102	17.70	79.70
27 to 28	5.10	13.75	103 to 108	18.70	85.80
29 to 30	5.45	15.40	109 to 114	19.70	91.30
31 to 32	5.80	17.05	115 to 120	20.70	96.80
33 to 34	6.15	18.70	121 to 126	21.70	102.30
35 to 36	6.50	20.35	127 to 132	22.70	107.80
37 to 40	7.20	23.10	133 to 138	23.70	113.80
41 to 44	7.90	26.40	139 to 144	24.70	119.80
45 to 48	8.60	29.70	.....	.....	.....

Pulleys with one flange one-half the prices given above.

Pulleys with three flanges one-half more than the prices given above.

Driving pulleys for shifting belts should have a straight face.

Tight and loose pulleys should have crowning faces.

An extra charge will be made if the bore of pulleys without bushes is of special diameter or large in comparison with the size of the pulley, or if pulley is both key-seated and set-screwed.

For list price of pulleys of fractional diameter, use list of next larger diameter given.

If pulley is not regular, make sketch showing exact dimensions of special features.

If key-seat is not specified, set-screws only will be furnished except in large pulleys.

When key-ways are wanted, specify whether straight or taper, and if taper, how much and whether set-screw on key. If not standard key-way give measurement.

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SHAFTING.

THE W. M. PATTISON SUPPLY CO.

FIG. 1967.

Size, Inches.	Price, Per Pound.	Weight, Per Foot, Pounds.	Price, Per Foot.	Size, Inches.	Price, Per Pound.	Weight, Per Foot, Pounds.	Price, Per Foot.	Size, Inches.	Price, Per Pound.	Weight, Per Foot, Pounds.	Price, Per Foot.
1/16	.10	.095	.01	1 1/8	.5 1/2	3.38	.19	2 1/16	.05	19.31	.97
1/8	.10	.130	.02	1 1/16	.5 1/2	3.77	.21	2 1/8	.05	20.21	1.02
1/4	.10	.167	.02	1 2/16	.5 1/2	3.86	.22	2 1/16	.05	21.15	1.06
1/16	.08 1/2	.260	.02	1 1/4	.5 1/2	4.17	.23	2 1/8	.05	22.09	1.11
1/8	.08 1/2	.320	.03	1 5/16	.5 1/2	4.61	.26	2 1/16	.05	23.06	1.16
3/8	.07	.375	.03	1 3/8	.5 1/2	5.05	.28	3	.05	24.05	1.21
1/16	.07	.450	.04	1 1/16	.5 1/2	5.26	.29	3 1/8	.05 1/2	26.09	1.37
1/8	.07	.511	.04	1 7/16	.5 1/2	5.52	.31	3 1/16	.05 1/2	27.16	1.43
1/16	.07	.586	.05	1 1/16	.05	5.60	.31	3 1/4	.05 1/2	28.22	1.49
1/2	.07	.667	.05	1 1/2	.05	6.01	.31	3 3/8	.05 1/2	30.43	1.60
9/16	.06	.845	.06	1 9/16	.05	6.52	.33	3 1/16	.05 1/2	31.58	1.66
1/8	.06	1.00	.06	1 5/8	.05	7.06	.36	3 1/2	.05 1/2	32.73	1.81
5/8	.06	1.05	.07	1 1/16	.05	7.61	.39	3 5/8	.05 1/2	35.20	1.94
1/16	.06	1.17	.08	1 3/4	.05	8.18	.41	3 1/16	.05 1/2	36.40	2.01
1/8	.06	1.26	.08	1 1/16	.05	8.78	.44	3 3/4	.05 1/2	37.57	2.07
1/16	.06	1.38	.09	1 7/8	.05	9.39	.47	3 1/16	.05 1/2	39.95	2.20
3/4	.05 1/2	1.50	.09	1 1/16	.05	10.03	.51	3 1/16	.05 1/2	41.25	2.27
1/16	.05 1/2	1.77	.10	2	.05	10.69	.54	4	.06	42.75	2.57
1/8	.05 1/2	1.90	.11	2 1/16	.05	11.35	.57	4 1/16	.06	47.40	2.85
7/16	.05 1/2	1.94	.11	2 1/8	.05	12.07	.61	4 1/4	.06	48.26	2.90
1/2	.05 1/2	2.05	.12	2 1/16	.05	12.80	.65	4 3/8	.06	51.80	3.11
9/16	.05 1/2	2.20	.13	2 1/4	.05	13.52	.68	4 1/16	.06	52.62	3.16
1/8	.05 1/2	2.35	.13	2 5/16	.05	14.35	.72	4 1/2	.06 1/2	54.11	3.52
1/16	.05 1/2	2.52	.14	2 3/8	.05	15.07	.76	4 1/16	.06 1/2	58.66	3.82
1	.05 1/2	2.68	.15	2 7/16	.05	15.89	.80	4 1/4	.06 1/2	60.88	3.96
1 1/16	.05 1/2	3.02	.17	2 1/2	.05	16.70	.84	4 1/16	.06 1/2	65.50	4.26
1 1/4	.05 1/2	3.11	.17	2 9/16	.05	17.55	.88	5	.07	67.45	4.72
1 3/8	.05 1/2	3.20	.18	2 5/8	.05	18.41	.93				

The above prices are for shafts from 1 foot to 24 feet long inclusive.
For Pump and Piston Rods, 1/2 cent per pound extra.
For shafts 6 to 11 1/4 inches long, 1/2 cent per pound net extra.
For shafts 3 to 5 3/4 inches long, 1 cent per pound net extra.
For shafts shorter than 3 inches, special prices will be quoted.
For shafts over 24 feet long and less than 30 feet, 1/2 cent per pound net extra.
For shafts 30 feet long and less than 35 feet, 1 cent per pound net extra.
For shafts 35 feet long and less than 40 feet, 1 1/2 cents per pound net extra.
For shafts 40 feet long and less than 45 feet, 2 cents per pound net extra.
For shafts 45 feet long and over, 2 1/2 cents per pound net extra.
The extra for cutting squares to short lengths is twice that for rounds.
Boxing at Cost.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

Cold Finished Steel Squares, for Keys, Splines, Square Shafts, Etc.

Square, Inches.	Weight, Per Foot, Pounds.	Price, Per Pound.	Square, Inches.	Weight, Per Foot, Pounds.	Price, Per Pound.	Square, Inches.	Weight, Per Foot, Pounds.	Price, Per Pound.
1/4	.213	.12	1 1/8	4.30	.08	2	13.60	.08
5/16	.332	.12	1 3/16	4.78	.08	2 1/16	14.39	.08
3/8	.479	.12	1 1/4	5.31	.08	2 1/8	15.26	.08
7/16	.652	.12	1 5/16	5.84	.08	2 3/16	16.18	.08
1/2	.850	.10	1 3/8	6.43	.08	2 1/4	17.25	.08
9/16	1.08	.10	1 7/16	6.99	.08	2 5/16	18.09	.08
5/8	1.34	.10	1 1/2	7.66	.08	2 3/8	19.07	.08
11/16	1.61	.10	1 9/16	8.26	.08	2 7/16	20.09	.08
3/4	1.92	.08	1 5/8	8.98	.08	2 1/2	21.26	.08
13/16	2.25	.08	1 11/16	9.63	.08	2 5/8	23.59	.08
7/8	2.60	.08	1 3/4	10.41	.08	2 3/4	25.72	.08
15/16	2.99	.08	1 13/16	11.11	.08	2 15/16	29.18	.08
1	3.40	.08	1 7/8	11.90	.08	3	30.61	.08
1 1/16	3.85	.08	1 15/16	12.70	.08			

Cold Finished Steel Flats, for Keys, Engine Guides, Elevator Slides, Etc.

Thickness, Inches.	WIDTH, INCHES.									
	5/16 to 1/2	9/16 to 2 1/2	3/4 to 1	1 1/16 to 1 1/2	1 9/16 to 1 3/4	1 13/16 to 2	2 1/16 to 2 1/4	2 5/16 to 2 1/2	2 9/16 to 2 3/4	2 13/16 to 3
1/4 and 5/16	.14	.14	.10	.10	.08	.08	.....	.....	.....	.....
3/8 and 7/16	.14	.14	.10	.10	.08	.08	.....	.....	.....	.....
1/2 and 9/16	.....	.10	.08	.08	.08	.08	.08	.08	.08	.08
5/8 and 11/16	.....	.08	.08	.08	.08	.08	.08	.08	.08	.08
3/4 and 13/16	.....	.....	.08	.08	.08	.08	.08	.08	.08	.08
1 to 1 7/16	.....	.....	.....	.08	.08	.08	.08	.08	.08	.08
1 1/2 to 1 11/16	.....	.....	.....	.....	.08	.08	.08	.08	.08	.08
1 3/4 to 1 15/16	.....	.....	.....	.....	.....	.08	.08	.08	.08	.08
2 to 2 3/16	.....	.....	.....	.....	.....	.....	.08	.08	.08	.08
2 1/4 to 2 7/16	.....	.....	.....	.....	.....	.....	.....	.08	.08	.08
2 1/2 to 2 11/16	.....	.....	.....	.....	.....	.....	.....	.....	.08	.08
2 3/4 to 2 15/16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.08

The above prices are for shafts from 2 foot to 24 foot long inclusive.

For shafts 11 13/16 inches to 23 3/4 inches long, 1/2 cent per pound net extra.

For shafts 6 inches to 11 3/4 inches long, 1 cent per pound net extra.

For shafts 3 inches to 5 3/4 inches long, 2 cents per pound net extra.

For shafts shorter than 3 inches long, special price.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

COLD FINISHED STEEL HEXAGONS, FOR SCREWS, ETC.

Size, Inches.	Weight, Per Foot, Pounds.	Price, Per Pound.	Size, Inches.	Weight, Per Foot, Pounds.	Price, Per Pound.	Size, Inches.	Weight, Per Foot, Pounds.	Price, Per Pound.
1/4	.195	.10	1 3/16	1.91	.07½	1 3/8	5.57	.07
5/16	.37	.10	1/4	2.25	.07	1 7/16	6.07	.07
3/8	.53	.08	1 5/16	2.58	.07	1 1/2	6.62	.07
7/16	.56	.08	1	2.94	.07	1 9/16	7.17	.07
1/2	.73	.08	1 1/16	3.33	.07	1 5/8	7.76	.07
9/16	.93	.07½	1 1/8	3.73	.07	1 11/16	8.37	.07
5/8	1.15	.07½	1 3/16	4.15	.07	1 3/4	9.	.07
11/16	1.4	.07½	1 1/4	4.6	.07	1 7/8	10.32	.07
3/4	1.66	.07½	1 5/16	5.07	.07	.....	.....	.....

The above prices are for shafts from 2 foot to 24 foot long inclusive.

For shafts 12 inches to 23¾ inches long, ¼ cent per pound net extra.

For shafts 6 inches to 11¾ inches long, ½ cent per pound net extra.

For shafts 3 inches to 5¾ inches long, 1 cent per pound net extra.

For shafts shorter than 3 inches long, special price.

Key Seating Shafts.

Diameter of Shaft, Inches.	Price, Full Length, Per Foot.	Price, For Couplings, Milled Ends, Per End.	MIDDLE SPLINES.			
			Price, First Foot or Less, Milled Ends.	Price, Second Foot and Over, Per Foot.	Price, Extra for Each Drilled End.	Price, Extra for Each Squared End.
1 and 1 1/8	.16	.24	.50	.16	.20	.30
1 3/16 and 1 3/8	.20	.30	.60	.20	.30	.40
1 7/16 and 1 3/4	.24	.40	.70	.24	.40	.50
1 13/16 and 2 1/8	.30	.50	.80	.30	.50	.60
2 3/16 and 2 3/4	.40	.60	.90	.40	.60	.70
2 13/16 and 3 3/8	.50	.80	1.10	.50	.70	.80
3 7/16 and 3 7/8	.60	1.00	1.30	.60	.80	1.00
3 13/16 and 4 1/4	.70	1.20	1.50	.70	.90	1.20
4 5/16 and 4 3/4	.90	1.40	1.70	.90	1.00	1.30
4 13/16 and 5 1/4	1.20	1.70	2.20	1.20	1.10	1.50
5 5/16 and 5 3/4	1.50	2.00	2.50	1.50	1.30	1.70
5 13/16 and 6	2.00	2.50	3.00	2.00	1.50	2.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 727

SHAFTING COUPLINGS.

RIBBED COMPRESSION COUPLING.

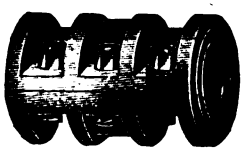

FIG. 1968.

DODGE.

FLANGED COUPLING.

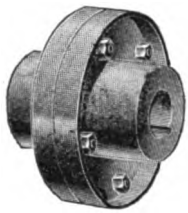

FIG. 1969.

Ribbed and Flanged Couplings.

Size of Shaft.....inches	$1\frac{3}{16}$	$1\frac{5}{16}$	$1\frac{7}{16}$	$1\frac{1}{16}$	$1\frac{1}{16}$	$2\frac{3}{16}$	$2\frac{7}{16}$	$2\frac{1}{16}$	$2\frac{5}{16}$
Price, Ribbed..... .each	3.05	3.65	4.20	6.30	7.40	9.00	10.00	11.00	13.00
Price, Flanged, Not Fitted...per pair	.....	.....	8.00	8.50	9.00	10.50	12.50	15.25	18.25
Price, Flanged, Fitted.....per pair	.....	.....	10.50	11.10	11.75	13.35	15.50	18.50	21.75

Size of Shaft .....inches	$3\frac{3}{16}$	$3\frac{7}{16}$	$3\frac{1}{16}$	$3\frac{5}{16}$	$4\frac{7}{16}$	$4\frac{5}{16}$	$5\frac{7}{16}$	$5\frac{5}{16}$	.....
Price, Ribbed.....each	16.50	20.00	24.00	28.00	38.00	.....	.....	.....	.....
Price, Flanged, Not Fitted...per pair	21.75	25.25	29.25	33.25	43.25	54.75	67.00	81.00	.....
Price, Flanged, Fitted.....per pair	25.75	29.75	34.25	39.25	56.25	73.00	87.50	103.00	.....

"GRIM DEATH" CLAMP COUPLING.

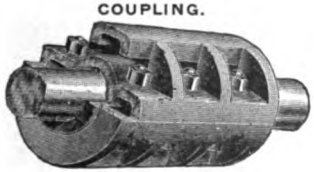

FIG. 1970.

JAW CLUTCH COUPLINGS.

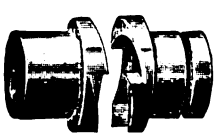

FIG. 1971.

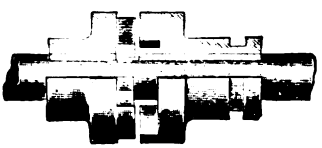

FIG. 1972.

Grim Death Clamp and Jaw Clutch Couplings.

Size of Shaft.....inches	$1\frac{3}{16}$	$1\frac{5}{16}$	$1\frac{7}{16}$	$1\frac{1}{16}$	$1\frac{1}{16}$	$2\frac{3}{16}$	$2\frac{7}{16}$	$2\frac{1}{16}$	$2\frac{5}{16}$
Price, "Grim Death"..each	4.75	.....	5.50	6.25	8.00	9.00	10.75	13.00	16.50
Price, Jaw Clutch, Not Fitted per pair	7.00	7.50	8.00	8.50	9.00	11.25	14.25	18.50	22.75
Price, Jaw Clutch, Fitted.....per pair	10.00	11.00	12.00	12.75	13.50	15.75	18.75	23.25	27.75

Size of Shaft.....inches	$3\frac{3}{16}$	$3\frac{7}{16}$	$3\frac{1}{16}$	$3\frac{5}{16}$	$4\frac{7}{16}$	$4\frac{5}{16}$	$5\frac{7}{16}$	$5\frac{5}{16}$	.....
Price, "Grim Death"..each	20.00	23.00	26.00	30.00	42.00	55.00	65.00	76.50	.....
Price, Jaw Clutch, Not Fitted per pair	.....	30.00	.....	39.00	52.00	70.00	95.00	130.00	.....
Price, Jaw Clutch, Fitted....per pair	.....	37.50	.....	48.75	65.50	87.00	115.00	155.00	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SHAFTING COUPLINGS.

DODGE.

UNIVERSAL JOINT COUPLING.

FIG. 1973.

Size of Shaft.....inches	2	2½	3	3½	4	4½	5
Price, Single.....each	70.00	80.00	95.00	120.00	150.00	185.00	230.00

FLANGED COMPRESSION COUPLINGS

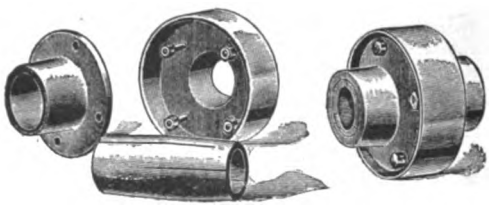

FIG. 1974.

Size of Shaft.....inches	1 3/16	1 5/16	1 7/16	1 1/2	1 5/8	2 3/16	2 7/16	2 1/2	2 5/8
Price.....each	4.75	5.00	5.50	6.25	8.00	9.00	10.75	13.00	16.00

Solid Sleeve Couplings or Loose Pulley Bushings.

Outside Diameter.....inches	2½			3				
Bore.....inches	1 3/16	1 7/16	1 1/2	1 3/16	1 7/16	1 1/2	1 5/8	2 3/16
Length.....inches	4	6	8	6	8	10		12
Price.....each	3.30	4.65	6.00	5.65	7.35	9.00		10.75

Outside Diameter.....inches	3½							
Bore.....inches	1 3/16	1 7/16	1 1/2	1 5/8	2 3/16	2 7/16	2 1/2	2 5/8
Length.....inches	6		8		10			12
Price.....each	7.00		8.70		10.40			12.50

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THE W. M. PATTISON SUPPLY CO. 729 CLEVELAND

ESTES COMPRESSION SHAFTING COUPLINGS.

COUPLING READY TO ASSEMBLE.

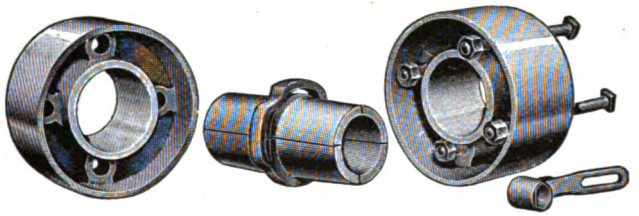

FIG. 1975.

COUPLING ASSEMBLED.

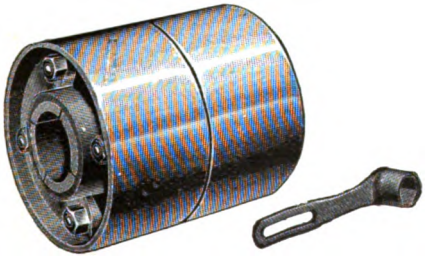

FIG. 1976.

DOUBLE COMPRESSION COUPLING.

FIG. 1977.

Compression Shafting Couplings.

Size of Shaft.....inches	$1\frac{3}{16}$	$1\frac{5}{16}$	$1\frac{7}{16}$	$1\frac{11}{16}$	$1\frac{15}{16}$	$2\frac{3}{16}$	$2\frac{7}{16}$	$2\frac{11}{16}$	$2\frac{15}{16}$
Price ....each	4.75	5.00	5.50	6.25	8.00	9.00	10.75	13.00	16.00

Double Compression Shafting Couplings.

Size of Shaft.....inches	$2\frac{15}{16}$	$3\frac{3}{16}$	$3\frac{7}{16}$	$3\frac{11}{16}$	$3\frac{15}{16}$	$4\frac{3}{16}$	$4\frac{7}{16}$	$4\frac{11}{16}$	$4\frac{15}{16}$
Price .....each	27.25	32.50	39.25	45.25	51.25	61.50	71.75	83.00	94.00

☞ The slots in the sleeve are cut the entire length, giving a uniform contact to both shafts, almost doubling the compression and greatly increasing its efficiency.

By using two tapered bored shells for compressing the segments of the sleeve on the shaft, instead of a shell and flange, we obtain greater compression due to the fact that the webs in these shells prevent any springing, which is a weak point in other couplings.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SHAFTING COLLARS.

DODGE.

PLAIN SET COLLAR.

FIG. 1978.

SAFETY COLLARS.

FIG. 1979.

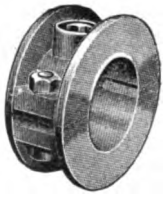

FIG. 1980.

Plain and Safety Collars.

Diameter of Shaft, Inches.	Price, Plain Set, Each.	Price, Safety, Each.	Diameter of Shaft, Inches.	Price, Plain Set, Each.	Price, Safety, Each.	Diameter of Shaft, Inches.	Price, Plain Set, Each.	Price, Safety, Each.
1 5/16	....	.62	2 5/8	....	2.03	4 1/4	....	4.28
1	.50	.65	2 11/16	1.40	2.10	4 7/16	....	4.42
1 1/8	....	.75	2 3/4	....	2.17	4 3/8	....	4.56
1 3/16	.55	.80	2 13/16	....	2.25	4 7/16	4.05	4.70
1 1/4	....	.85	2 7/8	....	2.32	4 1/2	....	4.85
1 5/16	.55	.90	2 15/16	1.65	2.40	4 5/8	....	5.15
1 3/8	....	.95	3	....	2.48	4 11/16	....	5.30
1 7/16	.60	1.00	3 1/8	....	2.63	4 3/4	....	5.45
1 1/2	....	1.05	3 3/16	1.90	2.70	4 7/8	....	5.75
1 9/16	....	1.10	3 1/4	....	2.77	4 15/16	5.40	5.90
1 5/8	....	1.15	3 3/8	....	2.92	5	....	6.06
1 11/16	.70	1.20	3 7/16	2.25	3.00	5 1/8	....	6.38
1 3/4	....	1.25	3 1/2	....	3.08	5 3/16	....	6.55
1 13/16	....	1.30	3 9/16	....	3.14	5 1/4	....	6.71
1 7/8	....	1.35	3 5/8	....	3.22	5 3/8	....	7.03
1 15/16	.80	1.40	3 11/16	....	3.30	5 7/16	6.00	7.20
2	....	1.45	3 3/4	....	3.37	5 1/2	....	7.37
2 1/8	....	1.55	3 13/16	....	3.45	5 5/8	....	7.72
2 3/16	1.05	1.60	3 7/8	....	3.52	5 11/16	....	7.90
2 1/4	....	1.65	3 15/16	2.85	3.60	5 3/4	....	8.08
2 3/8	....	1.75	4	....	3.75	5 7/8	....	8.42
2 7/16	1.20	1.80	4 1/8	....	4.00	5 15/16	6.90	8.60
2 1/2	....	1.88	4 3/16	....	4.15	....	....	....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

ADJUSTABLE BALL AND SOCKET HANGERS.

Standard Bearings.

SINGLE BRACE.

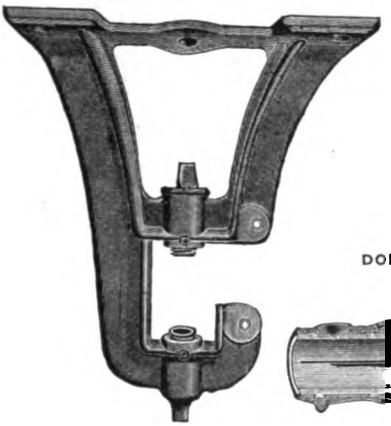

FIG. 1981.

DODGE.

FIG. 1982.

DOUBLE BRACE.

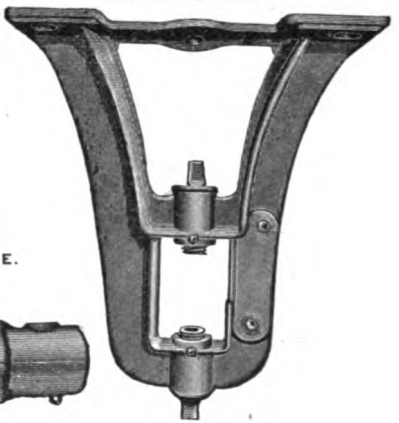

FIG. 1983.

Size of Shaft, Inches.	Brace.	DROP, INCHES.									
		8	10	12	14	16	18	20	24	30	36
1 3/16	Single	3.55	3.70	3.90	4.15	4.25	4.65	5.10	.....	.....	.....
	Double	3.85	4.00	4.20	4.45	4.55	4.95	5.40	.....	.....	.....
1 3/16	Single	3.65	3.80	4.00	4.25	4.35	4.75	5.20	.....	.....	.....
	Double	3.95	4.10	4.30	4.55	4.65	5.05	5.50	.....	.....	.....
1 7/16	Single	4.55	4.70	4.90	5.15	5.25	5.65	6.10	.....	.....	.....
	Double	4.95	5.10	5.30	5.55	5.65	6.05	6.50	.....	.....	.....
1 11/16	Single	4.65	4.80	5.00	5.25	5.35	5.75	6.20	.....	.....	.....
	Double	5.05	5.20	5.40	5.65	5.75	6.15	6.60	.....	.....	.....
1 15/16	Single	6.35	6.85	7.00	7.30	7.75	7.80	8.30	9.15	.....	.....
	Double	6.85	7.35	7.50	7.80	8.25	8.30	8.80	9.65	.....	.....
2 3/16	Single	8.15	8.50	8.65	9.15	9.75	10.20	11.10	12.80	15.15	.....
	Double	8.70	9.05	9.20	9.70	10.30	10.75	11.65	13.35	15.70	.....
2 7/16	Single	8.80	9.10	9.30	9.80	10.40	10.85	11.75	13.45	15.80	.....
	Double	9.35	9.65	9.85	10.35	10.95	11.40	12.30	14.00	16.35	.....
2 11/16	Single	10.05	10.55	11.15	11.25	12.55	13.65	14.70	16.95	19.00	19.75
	Double	10.85	11.35	11.95	12.05	13.35	14.45	15.50	17.75	19.80	20.55
2 15/16	Single	12.00	12.50	13.10	13.20	14.50	15.60	16.65	18.90	20.95	21.70
	Double	12.80	13.30	13.90	14.00	15.30	16.40	17.45	19.70	21.75	22.50
3 3/16	Single	.....	.....	15.90	16.65	17.15	18.55	20.45	23.65	26.75	28.65
	Double	.....	.....	16.95	17.70	18.20	19.60	21.50	24.70	27.80	29.70
3 7/16	Single	.....	.....	16.35	17.10	17.60	19.00	20.90	24.10	27.20	29.10
	Double	.....	.....	17.40	18.15	18.65	20.05	21.95	25.15	28.25	30.15
3 11/16	Single	.....	.....	22.20	24.70	24.85	25.60	27.50	32.75	36.20	40.75
	Double	.....	.....	23.40	25.90	26.05	26.80	28.70	33.95	37.40	41.95
3 15/16	Single	.....	.....	25.45	25.95	28.10	28.85	30.75	36.00	39.45	44.00
	Double	.....	.....	26.65	27.15	29.30	30.05	31.95	37.20	40.60	45.20

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

ADJUSTABLE BALL AND SOCKET HANGERS.

Capillary Bearings.

SINGLE BRACE.

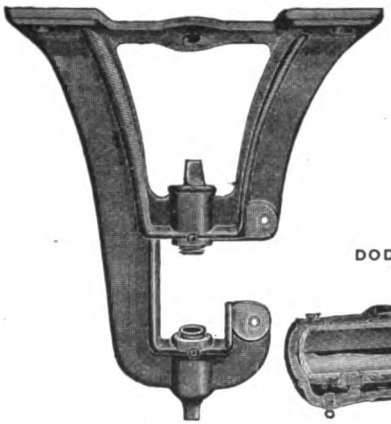

FIG. 1984.

DODGE.

FIG. 1985.

DOUBLE BRACE.

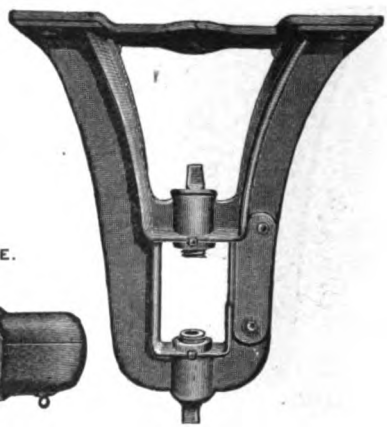

FIG. 1986.

Size of Shaft, Inches.	Brace.	DROP, INCHES.									
		8	10	12	14	16	18	20	24	30	36
1 5/16	Single	4.50	4.65	4.85	5.10	5.20	5.60	6.05	.....	.....	.....
	Double	4.80	4.95	5.15	5.40	5.50	5.90	6.35	.....	.....	.....
1 3/8	Single	4.65	4.80	5.00	5.25	5.35	5.75	6.20	.....	.....	.....
	Double	4.95	5.10	5.30	5.55	5.65	6.05	6.50	.....	.....	.....
1 7/16	Single	5.35	5.50	5.70	5.95	6.05	6.45	6.90	.....	.....	.....
	Double	5.65	5.90	6.10	6.35	6.45	6.85	7.30	.....	.....	.....
1 1/2	Single	5.60	5.75	5.95	6.20	6.30	6.70	7.15	.....	.....	.....
	Double	6.00	6.15	6.35	6.60	6.70	7.10	7.55	.....	.....	.....
1 5/8	Single	8.25	8.75	8.90	9.20	9.65	9.70	10.20	11.05	.....	.....
	Double	8.75	9.25	9.40	9.70	10.15	10.20	10.70	11.55	.....	.....
2 3/16	Single	10.15	10.50	10.65	11.15	11.75	12.20	13.10	14.80	17.15	.....
	Double	10.70	11.05	11.20	11.70	12.30	12.75	13.65	15.35	17.70	.....
2 7/16	Single	10.75	11.10	11.25	11.75	12.35	12.80	13.70	15.40	17.75	.....
	Double	11.30	11.65	11.80	12.30	12.90	13.35	14.25	15.95	18.30	.....
2 1/2	Single	12.65	13.25	13.75	13.85	15.15	16.25	17.30	19.55	21.60	22.35
	Double	13.45	14.05	14.55	14.65	15.95	17.05	18.10	20.35	22.40	23.15
2 5/8	Single	15.40	15.90	16.50	16.60	17.90	19.00	20.05	22.30	24.35	25.10
	Double	16.20	16.70	17.30	17.40	18.70	19.80	20.85	23.10	25.15	25.90
3 3/16	Single	.....	.....	24.20	24.95	25.45	26.85	28.75	31.95	35.05	37.55
	Double	.....	.....	25.25	26.00	26.50	27.90	29.80	33.00	36.10	38.60
3 7/16	Single	.....	.....	26.55	27.30	27.80	29.20	31.10	34.30	37.40	39.90
	Double	.....	.....	27.60	28.35	28.85	30.25	32.15	35.35	38.45	40.95
3 1/2	Single	.....	.....	30.80	31.30	33.45	34.20	36.10	41.35	44.80	49.35
	Double	.....	.....	32.00	32.50	34.65	35.40	37.30	42.55	46.00	50.55
3 5/8	Single	.....	.....	32.55	33.05	35.20	35.95	37.85	43.10	46.55	51.10
	Double	.....	.....	33.75	34.25	36.40	37.15	39.05	44.30	47.75	52.30

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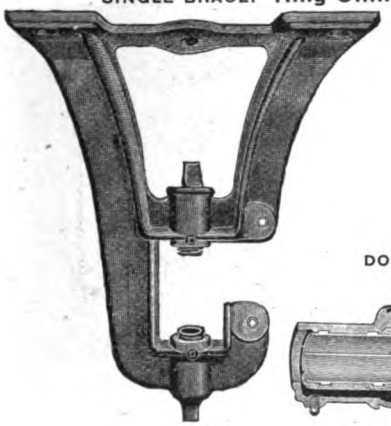
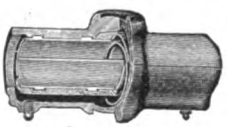
THE W. M. PATTISON SUPPLY CO. CLEVELAND

ADJUSTABLE BALL AND SOCKET HANGERS.

SINGLE BRACE. Ring Oiling Bearings. DOUBLE BRACE.



DODGE



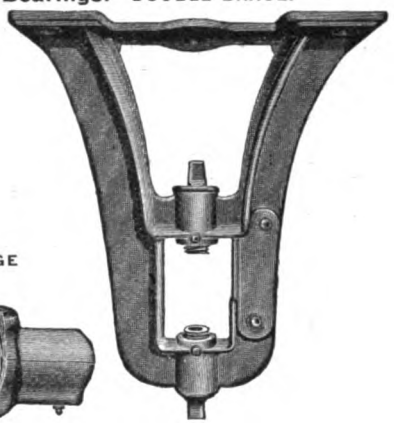


FIG. 1987. FIG. 1988. FIG. 1989.

Size of Shaft, Inches.	Brace.	DROP, INCHES.									
		8	10	12	14	16	18	20	24	30	36
1 1/16	Single	4.75	4.90	5.10	5.35	5.45	5.85	6.30	.....	.....	.....
	Double	5.05	5.20	5.40	5.65	5.75	6.15	6.60	.....	.....	.....
1 3/16	Single	4.85	5.00	5.20	5.45	5.55	5.95	6.40	.....	.....	.....
	Double	5.15	5.30	5.50	5.75	5.85	6.25	6.70	.....	.....	.....
1 7/16	Single	5.55	5.70	5.90	6.15	6.25	6.65	7.10	.....	.....	.....
	Double	5.85	6.10	6.30	6.55	6.65	7.05	7.50	.....	.....	.....
1 1/16	Single	5.80	5.95	6.15	6.40	6.50	6.90	7.35	.....	.....	.....
	Double	6.20	6.35	6.55	6.80	6.90	7.30	7.75	.....	.....	.....
1 1/16	Single	8.50	8.95	9.10	9.40	9.85	9.90	10.40	11.25	.....	.....
	Double	9.00	9.45	9.60	9.90	10.35	10.40	10.90	11.75	.....	.....
2 3/16	Single	10.40	10.75	10.90	11.40	12.00	12.45	13.35	15.05	17.40	.....
	Double	10.95	11.30	11.45	11.95	12.55	13.00	13.90	15.60	17.95	.....
2 7/16	Single	11.05	11.40	11.55	12.05	12.60	13.10	14.00	15.70	18.05	.....
	Double	11.60	11.95	12.10	12.65	13.20	13.65	14.55	16.25	18.60	.....
2 1/16	Single	13.00	13.60	14.05	14.15	15.45	16.55	17.60	19.85	21.90	22.60
	Double	13.80	14.40	14.85	14.95	16.25	17.35	18.40	20.65	22.70	23.45
2 1/16	Single	15.75	16.25	16.85	16.95	18.25	19.35	20.40	22.65	24.70	25.45
	Double	16.55	17.05	17.65	17.75	19.05	20.15	21.20	23.45	25.50	26.25
3 1/16	Single	.....	.....	24.60	25.35	25.85	27.25	29.15	32.35	35.45	37.95
	Double	.....	.....	25.65	26.40	26.90	28.30	30.20	33.40	36.50	39.00
3 7/16	Single	.....	.....	27.05	27.80	28.30	29.70	31.60	34.80	37.90	40.40
	Double	.....	.....	28.10	28.85	29.35	30.75	32.65	35.85	38.95	41.45
3 1/16	Single	.....	.....	31.35	31.85	34.00	34.75	36.65	41.90	45.35	49.90
	Double	.....	.....	32.55	33.05	35.20	35.95	37.85	43.10	46.55	51.10
3 1/16	Single	.....	.....	33.15	33.65	35.80	36.55	38.45	43.70	47.15	51.70
	Double	.....	.....	34.35	34.85	37.00	37.75	39.65	44.90	48.35	52.90

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ADJUSTABLE BALL AND SOCKET POST HANGERS.

Standard Bearings.

SINGLE BRACE.

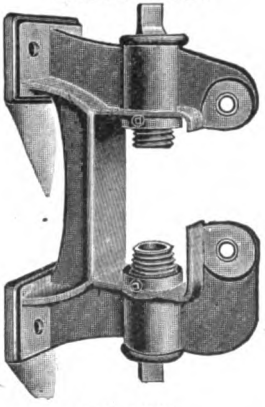

FIG. 1990.

DODGE.

FIG. 1991.

DOUBLE BRACE.

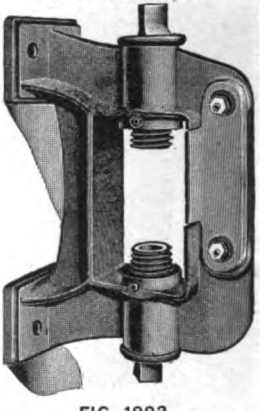

FIG. 1992.

Size.....inches	$1\frac{3}{16}$	$1\frac{7}{16}$	$1\frac{11}{16}$	$1\frac{15}{16}$	$2\frac{3}{16}$	$2\frac{7}{16}$	$2\frac{11}{16}$	$2\frac{15}{16}$
Price, Single Brace.....each	4.60	5.15	5.25	6.65	9.20	9.85	12.20	14.15
Price, Double Brace.....each	5.00	5.50	5.60	7.15	9.75	10.40	13.00	14.95
Size.....inches	$3\frac{3}{16}$	$3\frac{7}{16}$	$3\frac{11}{16}$	$3\frac{15}{16}$	$4\frac{3}{16}$	$4\frac{7}{16}$	$4\frac{11}{16}$	$4\frac{15}{16}$
Price, Single Brace.....each	17.95	18.40	24.25	27.50	31.30	32.55	41.40	44.45
Price, Double Brace.....each	19.00	19.45	25.45	28.70	32.85	34.10	43.35	46.40

Capillary Bearings.

SINGLE BRACE.

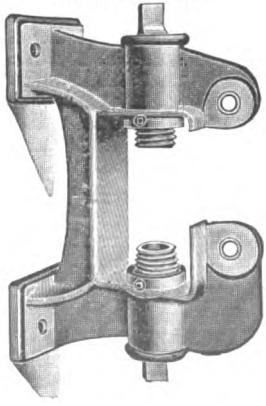

FIG. 1993.

F.G. 1994.

DOUBLE BRACE.

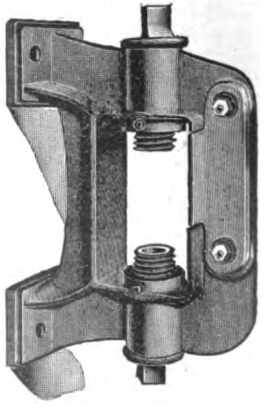

FIG. 1995.

Size.....inches	$1\frac{3}{16}$	$1\frac{7}{16}$	$1\frac{11}{16}$	$1\frac{15}{16}$	$2\frac{3}{16}$	$2\frac{7}{16}$	$2\frac{11}{16}$	$2\frac{15}{16}$
Price, Single Brace.....each	5.60	5.95	6.20	8.55	11.20	11.80	14.80	17.55
Price, Double Brace.....each	5.95	6.30	6.55	9.05	11.75	12.35	15.60	18.35
Size.....inches	$3\frac{3}{16}$	$3\frac{7}{16}$	$3\frac{11}{16}$	$3\frac{15}{16}$	$4\frac{3}{16}$	$4\frac{7}{16}$	$4\frac{11}{16}$	$4\frac{15}{16}$
Price, Single Brace.....each	26.25	28.60	32.85	34.60	38.00	40.65	51.75	56.85
Price, Double Brace.....each	27.30	29.65	34.05	35.80	39.55	42.20	53.70	58.80

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 735

ADJUSTABLE BALL AND SOCKET POST HANGERS.

SINGLE BRACE. Ring Oiling Bearings. DOUBLE BRACE

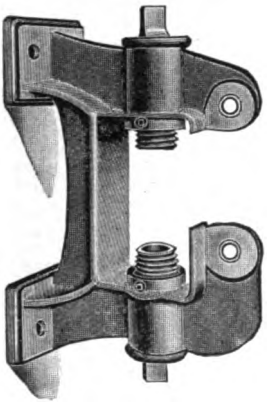

FIG. 1996.

DODGE.

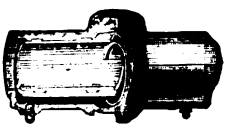

FIG. 1997

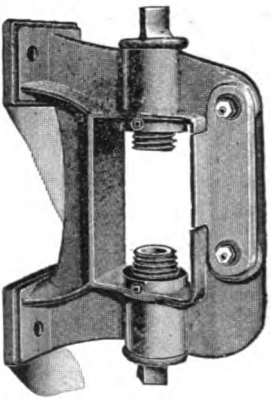

FIG. 1998.

Size.....inches	$1\frac{7}{16}$	$1\frac{11}{16}$	$1\frac{15}{16}$	$2\frac{3}{16}$	$2\frac{7}{16}$	$2\frac{11}{16}$	$2\frac{15}{16}$	$3\frac{3}{16}$
Price, Single Brace.....each	6.20	6.45	8.80	11.50	12.10	15.10	17.90	26.65
Price, Double Brace..... each	6.60	6.85	9.30	12.05	12.65	15.90	18.70	27.70

Size.....inches	$3\frac{7}{16}$	$3\frac{11}{16}$	$3\frac{15}{16}$	$4\frac{3}{16}$	$4\frac{7}{16}$	$4\frac{11}{16}$	$4\frac{15}{16}$	.....
Price, Single Brace.....each	29.10	33.40	35.20	38.75	41.50	52.65	57.80	.....
Price, Double Brace.....each	30.15	34.60	36.40	40.30	42.05	54.60	59.75	.....

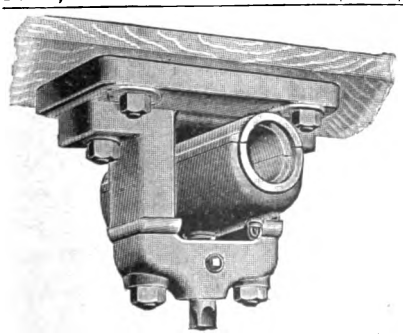

FIG. 1999.

Short Drop Head Shaft Hanger and Adjustable Pillow Block.

Size .....inches	$1\frac{3}{16}$	$1\frac{7}{16}$	$1\frac{11}{16}$	$1\frac{15}{16}$	$2\frac{3}{16}$	$2\frac{7}{16}$	$2\frac{11}{16}$	$2\frac{15}{16}$
Price, Standard Bearings.....each	4.30	4.85	4.95	7.80	11.80	12.45	15.60	17.55
Price, Capillary Bearings.....each	5.35	5.60	5.90	9.70	13.80	14.40	18.10	20.95
Price, Ring Oiling Bearings..each	5.50	5.85	6.10	9.95	15.05	14.70	18.55	21.30

Size.....inches	$3\frac{3}{16}$	$3\frac{7}{16}$	$3\frac{11}{16}$	$3\frac{15}{16}$	$4\frac{3}{16}$	$4\frac{7}{16}$	$4\frac{11}{16}$	.....
Price, Standard Bearings.....each	19.15	19.60	35.75	39.00	45.65	46.90	57.75	.....
Price, Capillary Bearings.....each	27.45	29.80	44.35	46.10	52.35	55.00	70.15	.....
Price, Ring Oiling Bearings..each	27.85	30.30	44.90	46.70	53.10	55.85	71.10	.....

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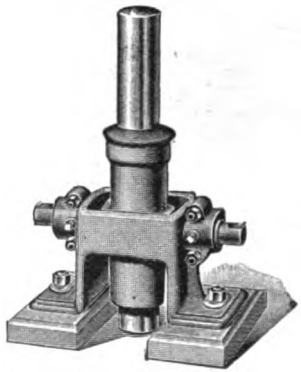
BASE PLATES AND ADJUSTABLE HANGERS.

BALL AND SOCKET ADJUSTABLE HANGER.

DODGE.



BASE OR SOLE PLATE.

FIG. 2000.

FIG. 2001.

Base or Sole Plates.

STANDARD BASE PLATES.				ADJUSTABLE BASE PLATES.			
Size, Inches.	Price, Each.	Size, Inches.	Price, Each.	Size, Inches.	Price, Each.	Size, Inches.	Price, Each.
$1\frac{7}{16}$	4.00	$3\frac{3}{16}$	16.00	$1\frac{7}{16}$	5.10	$5\frac{15}{16}$	39.60
$1\frac{11}{16}$	4.20	$4\frac{7}{16}$	18.00	$1\frac{11}{16}$	5.80	$6\frac{7}{16}$	42.75
$1\frac{15}{16}$	4.50	$4\frac{15}{16}$	22.50	$1\frac{15}{16}$	6.50	$6\frac{15}{16}$	45.90
$2\frac{3}{16}$	4.85	$5\frac{7}{16}$	27.00	$2\frac{3}{16}$	7.30	$7\frac{7}{16}$	49.00
$2\frac{7}{16}$	5.95	$5\frac{15}{16}$	31.50	$2\frac{7}{16}$	8.90	$7\frac{15}{16}$	54.00
$2\frac{11}{16}$	7.00	$6\frac{7}{16}$	33.75	$2\frac{11}{16}$	10.20	$8\frac{7}{16}$	59.75
$2\frac{15}{16}$	8.10	$6\frac{15}{16}$	36.00	$2\frac{15}{16}$	12.10	$8\frac{15}{16}$	65.50
$3\frac{3}{16}$	10.00	$7\frac{7}{16}$	39.00	$3\frac{3}{16}$	13.55	$9\frac{7}{16}$	69.60
$3\frac{7}{16}$	12.00	$7\frac{15}{16}$	42.00	$3\frac{7}{16}$	15.00	$9\frac{15}{16}$	73.70
$3\frac{11}{16}$	14.00	$8\frac{7}{16}$	45.00	$3\frac{11}{16}$	16.50	$10\frac{7}{16}$	77.80
.....	.....	.....	.....	$3\frac{15}{16}$	18.00	$10\frac{15}{16}$	81.90
.....	.....	.....	.....	$4\frac{7}{16}$	26.00	$11\frac{7}{16}$	86.00
.....	.....	.....	.....	$4\frac{15}{16}$	31.50	$11\frac{15}{16}$	90.00
.....	.....	.....	.....	$5\frac{7}{16}$	35.50	$12\frac{7}{16}$	95.00

Ball and Socket Adjustable Hangers, for Vertical Shafting.

Size ..... inches	$1\frac{7}{16}$	$1\frac{11}{16}$	$1\frac{15}{16}$	$2\frac{3}{16}$	$2\frac{7}{16}$	$2\frac{11}{16}$	$2\frac{15}{16}$	$3\frac{3}{16}$	$3\frac{7}{16}$	$3\frac{11}{16}$	$3\frac{15}{16}$
Price .....each	3.95	5.00	6.00	7.00	9.00	11.00	13.00	15.00	20.00	32.50	32.50

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PILLOW BLOCKS.

DODGE.

STANDARD RIGID PILLOW BLOCK.

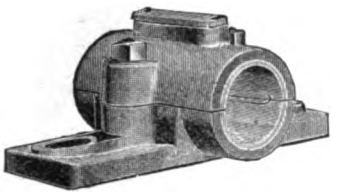

FIG. 2002.

SELF-OILING RIGID PILLOW BLOCK.

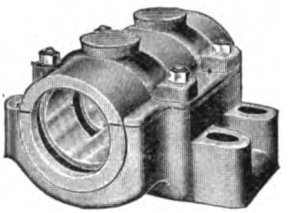

FIG. 2003.

DUST PROOF RIGID SELF-OILING PILLOW BLOCK WITH SPRING OIL COVER.

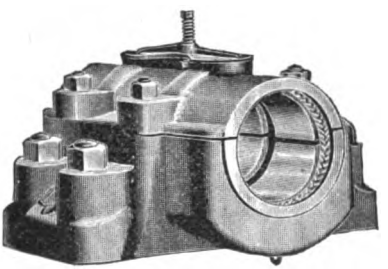

FIG. 2004.

Standard Rigid Pillow Block.

Size.. .....inches	1 1/8	1 3/16	1 7/16	1 1/8	1 5/8	2 3/16	2 7/16	2 1/8	2 5/8	3 3/16
Price ..... each	1.30	1.60	2.10	2.65	3.40	4.00	4.90	6.10	7.80	9.40
Size .....inches	3 7/16	3 1/8	3 5/8	4 7/16	4 5/8	5 7/16	5 5/8	6 7/16	6 5/8	7 5/8
Price ..... each	11.00	13.30	16.60	21.80	26.40	33.60	48.40	56.50	63.80	80.00

Self-Oiling Rigid Pillow Block with Ring, Chain or Capillary Oiling Device.

Size .....inches	1 7/16	1 1/8	1 5/8	2 3/16	2 7/16	2 1/4	2 5/8	3 3/16	3 7/16	3 1/2
Price.....each	5.00	6.50	8.00	10.25	12.50	15.25	18.00	21.00	24.00	28.00
Size.. .....inches	3 5/8	4 3/16	4 7/16	4 1/2	4 5/8	5 7/16	5 5/8	6 7/16	6 5/8	7 7/16
Price .....each	33.00	39.00	46.00	54.00	62.00	75.00	88.00	100.00	112.00	125.00
Size.....inches	7 5/8	8 7/16	8 5/8	9 7/16	9 5/8	10 7/16	10 5/8	11 7/16	11 5/8	.....
Price.....each	139.00	153.00	167.00	181.00	195.00	210.00	226.00	244.00	264.00	.....

Dust Proof Rigid Self-Oiling Pillow Blocks have rectangular grooves turned in ends, into which is laid a piece of square fibrous packing, which being constantly soaked in oil and surrounding the shaft, prevents dust working into the bearings.

Prices same as Fig. 2003.

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WALL BOX FRAMES.

DODGE.

STANDARD.

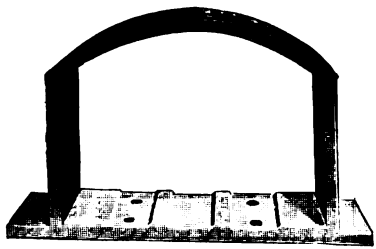

FIG. 2005.

ADJUSTABLE.

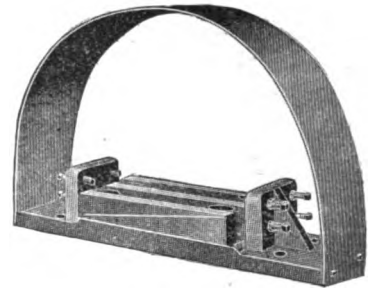

FIG. 2006.

Standard Wall Box Frames for Ball and Socket and Rigid Pillow Blocks.

Number	21	21	21	22	22	23	23	24
Size ..... inches	$1\frac{7}{16}$	$1\frac{11}{16}$	$1\frac{15}{16}$	$2\frac{3}{16}$	$2\frac{7}{16}$	$2\frac{11}{16}$	$2\frac{15}{16}$	$3\frac{3}{16}$
Price .....each	6.60	6.60	6.60	8.00	8.00	12.00	12.00	16.00

Number	24	25	25	26	26	27	27	.....
Size ..... inches	$3\frac{7}{16}$	$3\frac{11}{16}$	$3\frac{15}{16}$	$4\frac{7}{16}$	$4\frac{15}{16}$	$5\frac{7}{16}$	$5\frac{15}{16}$	.....
Price .....each	16.00	20.00	20.00	34.00	34.00	50.00	50.00	.....

Adjustable Wall Box Frames for Ball and Socket and Rigid Pillow Blocks, Side Adjustment.

Number	1	1	1	2	2	3	3	4
Size ..... inches	$1\frac{7}{16}$	$1\frac{11}{16}$	$1\frac{15}{16}$	$2\frac{3}{16}$	$2\frac{7}{16}$	$2\frac{11}{16}$	$2\frac{15}{16}$	$3\frac{3}{16}$
Price .....each	6.60	6.60	6.60	8.00	8.00	12.00	12.00	16.00

Number	4	5	5	6	6	7	7	.....
Size ..... inches	$3\frac{7}{16}$	$3\frac{11}{16}$	$3\frac{15}{16}$	$4\frac{7}{16}$	$4\frac{15}{16}$	$5\frac{7}{16}$	$5\frac{15}{16}$	.....
Price .....each	16.00	20.00	20.00	34.00	34.00	50.00	50.00	.....

Adjustable Wall Box Frames for Ball and Socket and Rigid Pillow Blocks, Side and Vertical Adjustment.

Number	10	10	10	20	20	30	30	40
Size ..... inches	$1\frac{7}{16}$	$1\frac{11}{16}$	$1\frac{15}{16}$	$2\frac{3}{16}$	$2\frac{7}{16}$	$2\frac{11}{16}$	$2\frac{15}{16}$	$3\frac{3}{16}$
Price .....each	7.70	8.20	8.60	10.45	10.95	15.20	16.00	19.55

Number	40	50	50	60	60	70	70	.....
Size .... inches	$3\frac{7}{16}$	$3\frac{11}{16}$	$3\frac{15}{16}$	$4\frac{7}{16}$	$4\frac{15}{16}$	$5\frac{7}{16}$	$5\frac{15}{16}$	.....
Price .....each	19.55	22.50	22.50	42.00	43.00	58.50	58.50	.....

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WALL BRACKETS.

DODGE.

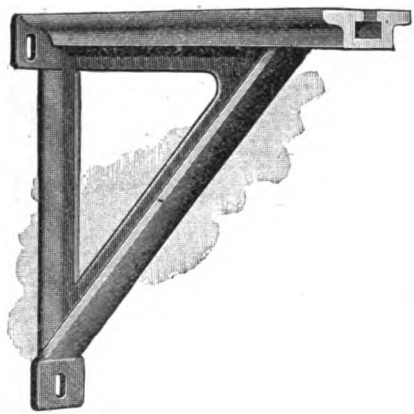

FIG. 2007.

Size	20F	20E	20D	24F	24E	24D	30F	30E	30D	36F	36E
Wall to Shaft Center..inches	20	20	20	24	24	24	30	30	30	36	36
Largest Size Shaft...inches	2½	3	3½	2½	3	3½	2½	3	3½	2½	3
Extreme Length.....inches	24½	24	24½	30½	30	30½	36	36½	36½	42¾	42½
Price.....each	5.12	5.76	6.40	7.68	10.24	12.80	10.24	12.80	15.36	12.80	20.40

ADJUSTABLE BALL AND SOCKET FLOOR STAND.

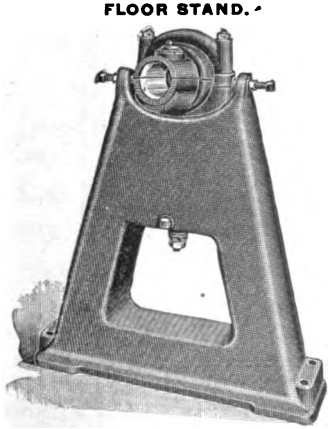

FIG. 2008.

ADJUSTABLE FLOOR STAND.

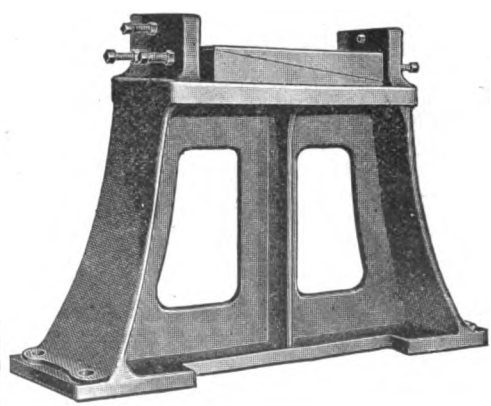

FIG. 2009.

The Adjustable Ball and Socket Floor Stands have both side and vertical adjustment, the bearing can be removed without disturbing the stand or line shaft.

The Adjustable Floor Stands are used on Quill work for electrical counter lines or other high speed shafting, they have vertical adjustment.

Prices on application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

COUNTER SHAFT FIXTURES.

DODGE.

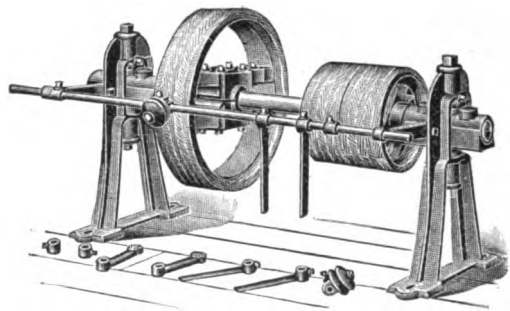

FIG. 2010.

Length of Arm and Fingers, Inches.	Price, Per Arm With Bolt.	Price, Fixtures Without Arms.	Price, Complete Set of Attachments.
8	.90	2.40	4.20
10	1.05	2.70	4.80
12	1.20	3.00	5.40

Prices include rod 4 feet long. Extra length rods 45 cents per foot.

ADJUSTABLE STEP BEARING.

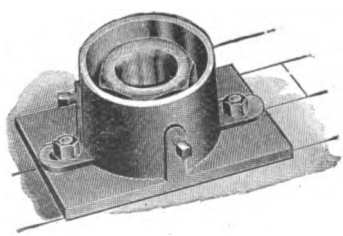

FIG. 2011.

VERTICAL BEARING.

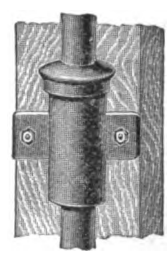

FIG. 2012.

Adjustable Step Bearings.

Shafts .....inches	1 3/16	1 7/16	1 11/16	1 15/16	2 3/16	2 7/16	2 11/16	2 15/16	3 3/16	3 7/16	3 11/16	3 15/16
Price .....each	6.00	6.75	7.80	9.20	11.00	13.00	16.00	20.00	22.80	26.20	29.90	36.00

Vertical Bearings.

Shafts .....inches	1 7/16	1 11/16	1 15/16	2 3/16	2 7/16	2 11/16	2 15/16	3 3/16	3 7/16	3 11/16	3 15/16
Price .....each	3.25	3.75	5.00	6.25	7.50	9.00	11.25	13.00	16.00	22.00	

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 741

MULE PULLEY STANDS AND CARRIER FRAMES.

DODGE.

STATIONARY MULE PULLEY STAND.

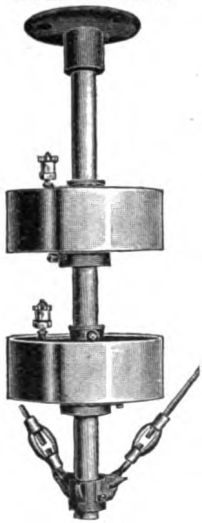

FIG. 2013.

BINDER OR CARRIER FRAME.

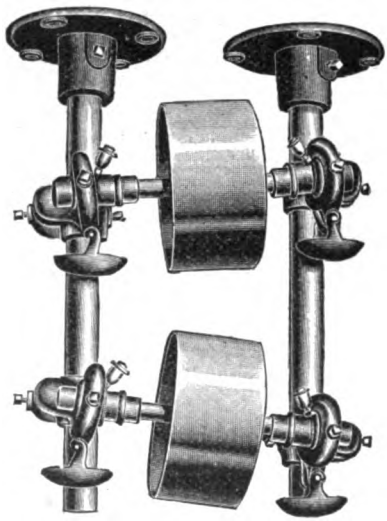

FIG. 2014.

Stationary Mule Pulley Stands.

Belt .....inches	2	3	4	5	6	7	8	10	12
Number of Pulleys.....	2	2	2	2	2	2	2	2	2
Pulleys.....inches	10x3	10x4	12x5	12x6	16x7	16x8	24x10	24x12	30x14
Price .....each	22.50	25.00	30.00	32.00	37.50	40.00	45.00	55.00	65.00

Furnished with either Wood or Iron Pulleys.

Binder or Carrier Frames.

Belt.....inches	4	5	6	8	10	12
Pulleys..... .....inches	10	12	14	16	16	20
Price..... ....each	55.00	65.00	75.00	85.75	90.00	100.00

Furnished with either Wood or Iron Pulleys.

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THE W. M. PATTISON SUPPLY CO. 742 CLEVELAND

COMPLETE QUILL ARRANGEMENT.

DODGE.

With Iron Center Pulleys, Split Friction Clutch, Chain Oiling Bearings, Shifting Gear, Etc.

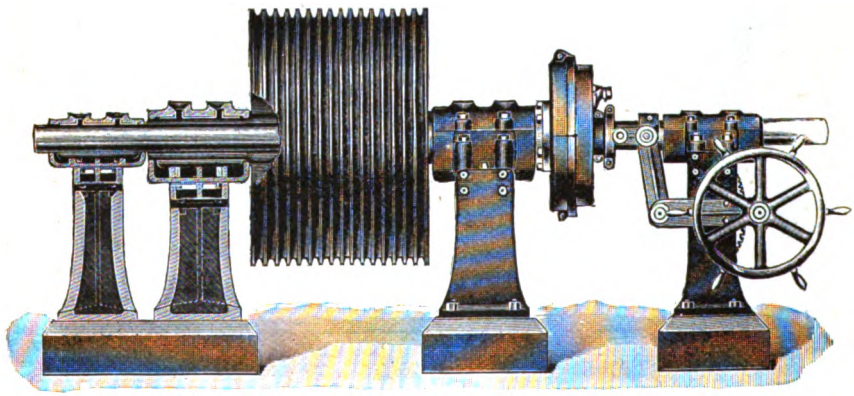

FIG. 2015.

The Quill Arrangement illustrated above, consists of an iron center pulley and split friction clutch mounted on a hollow shaft running in the two center bearings; a section of line shafting running through the same. It is used for heavy power where it is desired to reduce the friction to a minimum. When the power transmitted by same is not in use, the main shaft carries its own weight. Furnished for either rope transmission or belting.

Further information and prices on application.

Dodge Patent American System Rope Transmission.

The cheapest, most economical and convenient system for transmitting power where space is limited. Dodge Patent American System involves a number of continuous ropes in connection with a Winder or Snub Sheave and Automatic Traveling Take-up Carriage, which preserves uniform tension on the rope, increases frictional contract in the grooves and adds largely to the efficiency of the drive. Owing to the almost unlimited variations and applications, this system has reached a stage of popularity well deserved. Each drive has an individuality which makes it advisable for us to have each outfit estimated upon direct, thus insuring accuracy as well as the application of information which has become known to us only through our wide range of practice in this field.

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THE W. M. PATTISON SUPPLY CO. 743 CLEVELAND

VERTICAL IRON FRAME BELT TIGHTENERS.

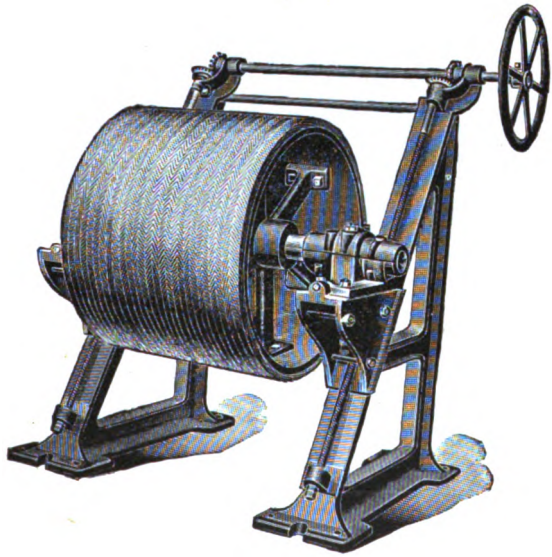

FIG. 2016.

Number.	Width of Belt, Inches.	Size of Pulley, Inches.	Price, Each.	Number.	Width of Belt, Inches.	Size of Pulley, Inches.	Price, Each.
10a	10	20 x 12	200.00	36a	36	40 x 38	510.00
11a	11	20 x 13	210.00	38a	38	40 x 40	535.00
12a	12	22 x 14	220.00	40a	40	40 x 42	560.00
13a	13	22 x 15	225.00	42a	42	40 x 44	590.00
14a	14	22 x 16	235.00	44a	44	40 x 46	620.00
15a	15	22 x 17	250.00	46a	46	42 x 48	660.00
16a	16	24 x 18	260.00	48a	48	42 x 50	695.00
17a	17	24 x 19	265.00	50a	50	42 x 52	720.00
18a	18	24 x 20	275.00	52a	52	48 x 54	750.00
20a	20	26 x 22	290.00	54a	54	48 x 56	780.00
21a	21	26 x 23	310.00	56a	56	48 x 58	810.00
22a	22	28 x 24	325.00	58a	58	48 x 60	850.00
23a	23	28 x 25	340.00	60a	60	50 x 62	880.00
24a	24	30 x 26	355.00	62a	62	50 x 64	910.00
25a	25	30 x 27	370.00	64a	64	50 x 66	940.00
26a	26	30 x 28	385.00	66a	66	50 x 68	970.00
28a	28	36 x 30	420.00	68a	68	50 x 70	1000.00
30a	30	36 x 32	440.00	70a	70	54 x 72	1040.00
32a	32	38 x 34	460.00	72a	72	54 x 74	1080.00
34a	34	38 x 36	485.00				

These Belt Tighteners are designed for heavy duty as on main engine or driving belts, electrical generating service, etc., liberal adjustments are provided. All bearings are self-oiling, and are placed on vertical side when desired. Hand wheel shaft placed on top when so specified.

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DODGE SPLIT FRICTION CLUTCH CUT-OFF COUPLING.

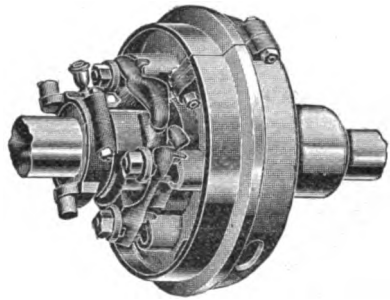

FIG. 2017.

Size of Clutch, Inches.	Size of Shaft Equal to Capacity of Clutch, Inches.	Horse Power of Shaft at 100 Revolutions.	Largest Size Clutch Will Bore, Inches.	Price of Coupling, Complete.
10	1½	6	2¼	49.00
12	1¾	10	3	56.00
14	2	15	3½	66.00
16	2¼	19	4½	82.00
18	2½	26	5	102.00
20	2¾	34	6	124.00
22	3	42	6	150.00
24	3¼	51	6½	172.00
26	3½	63	6½	190.00
28	3¾	78	7	213.00
30	4	90	7½	264.00
36	4½	126	8	339.00
40	4¾	150	10	382.00
48	5	210	12	495.00
54	6	295	12	641.00
60	6½	400	12	810.00

All clutches above 48 inches in diameter have three sets of levers, each with two points of contact for securing compression of the friction rings. The levers in all clutches are accurately counterbalanced and will run satisfactorily at any speed.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 745

ORTON FRICTION CLUTCH.

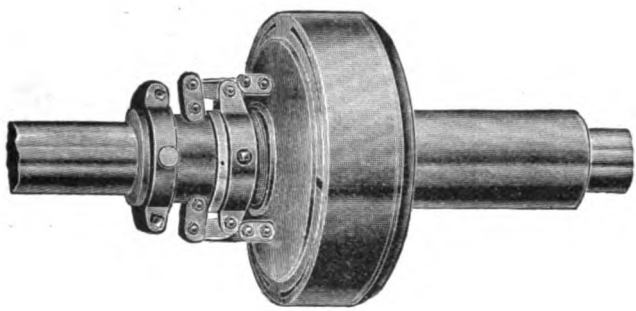

FIG. 2018.

Size of Clutch, Inches.	Largest Size Clutch Will Bore, Inches.	Extreme Outside Diameter, Inches.	Horse Power at 100 Revolutions.	Pulley Will Drive, Inches.			Price, Each.	Standard Sleeve.	
				Diameter, Inches.		Face, Inches.		Outside Diameter, Inches.	Length Inches.
				S. B.	D. B.				
4	$1\frac{5}{16}$	$5\frac{3}{8}$	$1\frac{1}{4}$	14	.....	3	15.00	$2\frac{3}{16}$	$4\frac{1}{2}$
5	$1\frac{9}{16}$	$6\frac{1}{2}$	2	16	.....	4	17.50	$2\frac{7}{16}$	5
6	$1\frac{13}{16}$	$7\frac{11}{16}$	3	18	13	5	20.00	$2\frac{11}{16}$	6
7	$1\frac{13}{16}$	$8\frac{7}{8}$	4	20	14	6	22.50	3	7
8	$2\frac{3}{16}$	$10\frac{1}{8}$	5	22	15	7	27.00	$3\frac{3}{16}$	8
9	$2\frac{9}{16}$	$11\frac{3}{8}$	6	24	16	8	30.00	$3\frac{3}{4}$	10
10	$2\frac{13}{16}$	$12\frac{5}{8}$	10	34	24	9	37.00	$4\frac{3}{8}$	11
12	$3\frac{13}{16}$	$15\frac{1}{8}$	15	46	32	10	45.00	$5\frac{1}{16}$	12
14	$4\frac{13}{16}$	$17\frac{5}{8}$	20	.....	38	11	55.00	$6\frac{1}{2}$	13
16	$5\frac{13}{16}$	$19\frac{1}{4}$	25	.....	44	12	75.00	8	14

The above sizes of pulleys are based upon a driving tension of 42 pounds for single belt and 60 pounds for double belt, per inch of width. When greater belt stress is used, a larger size of clutch should be employed.

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DODGE SPLIT FRICTION CLUTCHES.

Fitted for Standard Sleeves.

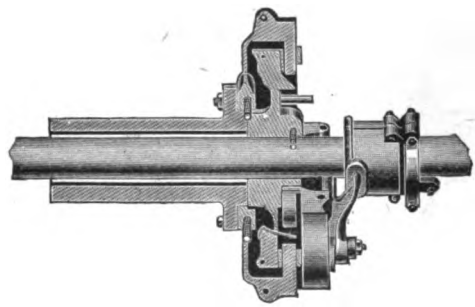

FIG. 2019.

Size of Clutch, Inches.	Largest Size Clutch Will Bore, Inches.	Extreme Outside Diameter, Inches.	Horse Power at 100 Revolutions.	Pulley Will Drive, Inches.		Price, Each.
				Diameter, Inches.	Face, Inches.	
10	2½	12	6	26	7	38.50
12	3	16½	10	30	10	45.50
14	3½	18⅝	15	36	12	54.50
16	4½	20½	19	40	14	70.00
18	5	22¾	26	48	16	90.00
20	6	24⅞	34	52	18	110.00
22	6	27	42	60	18	135.00
24	6½	29¼	51	64	20	155.00
26	6½	31½	63	72	22	170.00
28	7	32½	78	84	24	190.00
30	7½	33	90	86	24	238.00
36	8	40¼	126	102	26	310.00
40	10	45½	150	108	30	350.00
42	10	47¼	162	114	30	380.00
48	12	54	210	114	36	455.00
54	12	60½	295	120	42	575.00
60	12	67¾	400	144	44	720.00

The above price list includes shifter yoke and fulcrum casting. Extended sleeves extra. See price list for standard sleeves page 747.

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EXTENSION SLEEVES FOR DODGE SPLIT FRICTION CLUTCHES.

Adapted for Pulleys, Rope Sheaves, Gears, Sprockets, Drums, Etc.

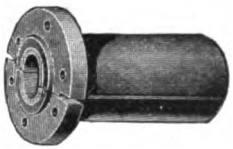

FIG. 2020.

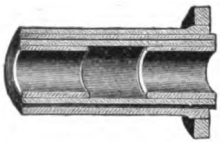

FIG. 2021.

Length of Sleeve, Inches.	SIZE OF SHAFT, INCHES.								
	2 and Less	2¼ to 2½	2¾ to 3	3¼ to 3½	3¾ to 4	4¼ to 4½	4¾ to 5	5¼ to 5½	5¾ to 6
4	4.95	6.08	.....	.....	.....	.....	.....	.....	.....
5	5.60	6.84	8.10	.....	.....	.....	.....	.....	.....
6	6.30	7.60	8.90	10.22	12.60	.....	.....	.....	.....
7	6.95	8.40	9.70	11.14	13.60	.....	.....	.....	.....
8	7.60	9.15	10.50	12.06	14.60	16.70	.....	.....	.....
9	8.25	9.90	11.30	12.98	15.60	17.80	20.35	25.25	30.15
10	8.90	10.65	12.10	13.90	16.60	18.90	21.60	26.70	31.80
11	9.60	11.40	13.00	14.80	17.60	20.00	22.85	28.15	33.45
12	10.25	12.20	13.80	15.75	18.60	21.10	24.10	29.60	35.10
13	10.90	13.00	14.60	16.70	19.60	22.20	25.35	31.05	36.70
14	11.55	13.70	15.40	17.60	20.60	23.30	26.60	32.50	38.40
15	12.25	14.50	16.20	18.50	21.60	24.40	27.85	33.95	40.05
16	12.90	15.20	17.00	19.45	22.60	25.50	29.10	35.40	41.70
18	.....	16.00	17.80	20.35	23.60	26.60	30.35	36.85	43.35
20	.....	.....	18.60	21.30	24.60	27.70	31.60	38.30	46.65
22	.....	.....	19.40	22.20	25.60	28.80	32.85	39.75	48.30
24	.....	.....	20.20	23.12	26.60	29.90	34.10	41.20	49.95
26	.....	.....	21.00	24.05	27.60	31.00	35.35	42.65	51.60
28	.....	.....	21.80	24.97	28.60	32.10	36.60	44.10	53.25
For additional Sleeve lengths per in.	.35	.40	.40	.45	.50	.55	.65	.75	.85

Prices are for Clutches 30 inches in diameter and less.

For Clutches over 30 inches in diameter add 15 per cent. to above list.

The above list is for finished split iron sleeves, lined with best genuine metal, accurately bored, fitted to clutch mechanism and key seated, ready to receive clutch connection. Each sleeve is fitted for one or more compression grease cups, according to length, size of shaft and speed.

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STANDARD ARGUTO WOOD BUSHINGS AND WASHERS.

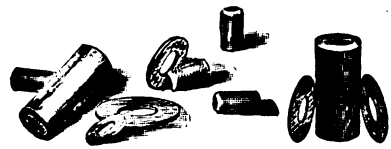

FIG. 2022.

Wall, Inches.	Inside Diameter, Inches.	Outside Diameter, Inches.	LENGTH OF BUSHINGS, INCHES. 1	1½	2	2½	3	3½	4	4½	5	6	8	10	12
	¼	½	.05	.08	.10	.13	.15	.....	.....	.....	.....	.....	.....	.....	.....
	5/16	9/16	.05	.08	.10	.13	.15	.....	.....	.....	.....	.....	.....	.....	.....
⅛	5/16	5/8	.08	.11	.13	.16	.18	.....	.....	.....	.....	.....	.....	.....	.....
	3/8	5/8	.08	.11	.13	.16	.18	.....	.....	.....	.....	.....	.....	.....	.....
	7/16	11/16	.08	.11	.13	.16	.18	.....	.....	.....	.....	.....	.....	.....	.....
	½	⅞	.10	.14	.18	.22	.25	.....	.....	.....	.....	.....	.....	.....	.....
	9/16	15/16	.10	.14	.18	.22	.25	.....	.....	.....	.....	.....	.....	.....	.....
	5/8	1	.10	.14	.18	.22	.25	.....	.....	.....	.....	.....	.....	.....	.....
	11/16	1 1/16	.10	.14	.18	.22	.25	.....	.....	.....	.....	.....	.....	.....	.....
3/16	¾	1 ⅛	.12	.17	.22	.26	.30	.33	.35	.....	.....	.....	.....	.....	.....
	13/16	1 3/16	.12	.17	.22	.26	.30	.33	.35	.....	.....	.....	.....	.....	.....
	⅞	1 ¼	.12	.17	.22	.26	.30	.33	.35	.....	.....	.....	.....	.....	.....
	15/16	1 5/16	.12	.17	.22	.26	.30	.33	.35	.....	.....	.....	.....	.....	.....
	1	1 ⅜	.15	.20	.25	.30	.35	.38	.40	.43	.45	.50	.....	.....	.....
	1 1/16	1 9/16	.15	.20	.25	.30	.35	.38	.40	.43	.45	.50	.....	.....	.....
	1 ⅛	1 ⅝	.15	.20	.25	.30	.35	.38	.40	.43	.45	.50	.....	.....	.....
¼	1 3/16	1 11/16	.15	.20	.25	.30	.35	.38	.40	.43	.45	.50	.....	.....	.....
	1 ¼	1 ¾	.15	.20	.25	.30	.35	.38	.40	.43	.45	.50	.....	.....	.....
	1 5/16	1 13/16	.15	.20	.25	.30	.35	.38	.40	.43	.45	.50	.....	.....	.....
	1 ⅜	1 ⅞	.15	.20	.25	.30	.35	.38	.40	.43	.45	.50	.....	.....	.....
	1 7/16	2 1/16	.18	.25	.30	.35	.40	.45	.50	.53	.55	.60	.....	.....	.....
	1 ½	2 ⅛	.18	.25	.30	.35	.40	.45	.50	.53	.55	.60	.....	.....	.....
	1 9/16	2 3/16	.18	.25	.30	.35	.40	.45	.50	.53	.55	.60	.....	.....	.....
	1 ⅝	2 ¼	.18	.25	.30	.35	.40	.45	.50	.53	.55	.60	.....	.....	.....
5/16	1 11/16	2 5/16	.20	.28	.35	.43	.50	.55	.60	.63	.65	.70	.....	.....	.....
	1 ¾	2 ⅜	.20	.28	.35	.43	.50	.55	.60	.63	.65	.70	.....	.....	.....
	1 13/16	2 7/16	.20	.28	.35	.43	.50	.55	.60	.63	.65	.70	.....	.....	.....
	1 ⅞	2 ½	.20	.28	.35	.43	.50	.55	.60	.63	.65	.70	.....	.....	.....
	1 15/16	2 9/16	.20	.28	.35	.43	.50	.55	.60	.63	.65	.70	.....	.....	.....
	2	2 ⅝	.22	.31	.40	.48	.55	.60	.65	.70	.75	.80	.90	1.00	1.10
	2 1/16	2 11/16	.22	.31	.40	.48	.55	.60	.65	.70	.75	.80	.90	1.00	1.10
	2 ⅛	2 ¾	.22	.31	.40	.48	.55	.60	.65	.70	.75	.80	.90	1.00	1.10
3/8	2 3/16	2 13/16	.22	.31	.40	.48	.55	.60	.65	.70	.75	.80	.90	1.00	1.10
	2 ¼	3	.22	.31	.40	.48	.55	.60	.65	.70	.75	.80	.90	1.00	1.10
	2 5/16	3 1/16	.22	.31	.40	.48	.55	.60	.65	.70	.75	.80	.90	1.00	1.10
	2 ⅜	3 ⅛	.24	.35	.45	.53	.60	.68	.75	.80	.85	.90	1.00	1.10	1.20

Standard Arguto Wood Thrust Washers.

Shaft diameters.....inches	¼ to ½	⅝ to 1 1/16	¾ to 1 1/16	1 1/16 to 1½	1½ to 1⅞	1⅞ to 2⅜	2⅜ to 2¾	2¾ to 3½
Outside diameter.....inches	½ to 1	1⅛ to 1¾	1½ to 2	2⅛ to 2½	2⅝ to 2¾	2⅞ to 3½	3⅝ to 4⅛	4½ to 4¾
Thickness.....inches	3/32	⅛	⅛	⅛	5/32	5/32	3/16	¼
Price.....per pair	.04	.04	.06	.06	.08	.10	.12	.14

For use without oil; send for special catalogue.

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DETACHABLE SPROCKET CHAIN.

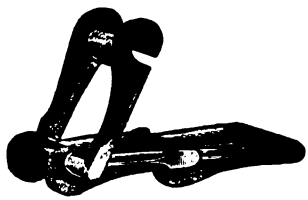

FIG. 2023.

Number.	PRICE PER FOOT.			Number of Links, Per Foot.	Working Strain, Pounds.	Approximate in Leather Belting, Inches.
	All Plain Links.	All Attachment Links.	With Attachment at Intervals.			
25	.12	.28	.17	13.3	75	1 Single
32	.12	.25	.17	10.4	150	1½ Single
33	.12	.25	.17	8.6	200	2 Single
34	.12	.25	.17	8.6	225	2½ Single
35	.12	.25	.17	7.4	250	2½ Single
42	.13	.27	.18	8.8	300	3 Single
45	.13	.27	.18	7.4	350	3½ Single
51	.17	.30	.22	10.4	375	3½ Single
52	.18	.30	.22	8.	500	4 Single
55	.18	.28	.21	7.4	450	4 Single
57	.18	.36	.24	5.2	600	6 Single
62	.24	.41	.30	7.3	650	6½ Single
66	.24	.41	.30	6.	700	6½ Single
67	.24	.41	.30	5.2	700	7 Single
75	.28	.45	.34	4.6	750	7½ Single
77	.28	.45	.34	5.2	800	8 Single
78	.32	.56	.40	4.6	1000	10 Single
83	.36	.67	.53	3.	1200	12 Single
85	.40	.70	.54	3.	1300	9 Double
88	.38	.68	.53	4.6	1200	8 Double
93	.45	.70	.56	3.	1600	10 Double
95	.48	.90	.68	3.	1600	10 Double
103	.60	.90	.75	4.	1800	12 Double
105	.54	.75	.65	2.	1500	10 Double
108	.60	1.00	.82	2.55	1800	12 Double
110	.75	1.20	.98	2.55	2000	13 Double
114	.75	.96	.87	3.7	2000	13 Double
122	.90	1.40	1.15	2.	2200	15 Double
124	.90	1.50	1.20	3.	2250	17 Double
146	.90	1.40	1.15	2.	2800	19 Double
160	1.20	1.80	1.50	1.2	4000	.....

The above prices of attachments are for A1, A2, A3, C1, E1, F2, G1, G6. H1, H2, K1, K2, M1, M3, R1, R3, S1 and S2, and as they are now made for the respective chains. Other attachments will be furnished at special prices.

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LIST OF ATTACHMENTS AS REGULARLY MADE FOR DETACHABLE SPROCKET CHAIN.

25	A1	A3	C1 D3	E1		G1		H2	K1	K5	K6	M1		S1	Coupler
32	A1	A3	C1 D3	E1		G1			K1	K3	K5	K6	M1	S1	Coupler
33	A1		D3	E1					K1	K3	K5	K6	M1	S1	Coupler
34	A1		C1	E1					K1						Coupler
35	A1	A2	C1	E1					K1		K5			S1	Coupler
42	A1	A3	C1						K1	K3	K5	K6		S1	Coupler
45	A1	A3	C1 D3	D5 E1	F2	G1		H2	K1	K3	K5		M1	S1	Coupler
51	A1								K1		K5			S1	Coupler
52	A1	A3	C1	D5 E1	F2	G1			K1		K5				Coupler
55	A1	A2	C1	E1	F2				K1		K5		M1	S1	Coupler
57	A1	A3		D5 E1	F2			H2	K1					S2	Coupler
62	A1	A3	C1	D5					K1		K5				Coupler
66			C1												Coupler
67	A1	A7 A11		D5 E1	FF F2	G1		H1	K1					S2	Coupler
75				E1				H1	K1				M3	R1	Coupler
77	A1			E1	F2	G1	G6	H1	K1					R3 S2	Coupler
78		A3 A7 A11		D5 E1	FF F2	F1 G1	G6 G19	H2 H6	K1				M3	R1 S2	Coupler
83				D5 E1	FF	G1							M3		Coupler
85				E2	FF F2	F5	G6	H1	K2	K4		K7 M3		S2	Coupler
88	A1	A3 A7			FF F2	F8 G1	G6	H1	K1					R1 S2	Coupler
93						G1									Coupler
95					F2			H1	K2						Coupler
103	A1	A11		E1	F2	F8	G6	H2	K1				M3	R1	Coupler
105					F1			H2	K2	K4			M3		
107					F1					K4			M1		
108					FF F2	G1			K2						Coupler
110					F2				K2						Coupler
114		A11				F8	G6		K1						Coupler
122					F2				K2				M3		Coupler
124		A11			F2	F8 G1	G6		K1				M3	R1	Coupler
146				E2	F2	F5			K2	K4					
160									K2						

For prices of regular attachments see page 749. Prices of others quoted upon application.

Those in full face type usually carried in stock.

Special Attachments to order.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

ATTACHMENTS AS REGULARLY MADE FOR DETACHABLE SPROCKET CHAIN.

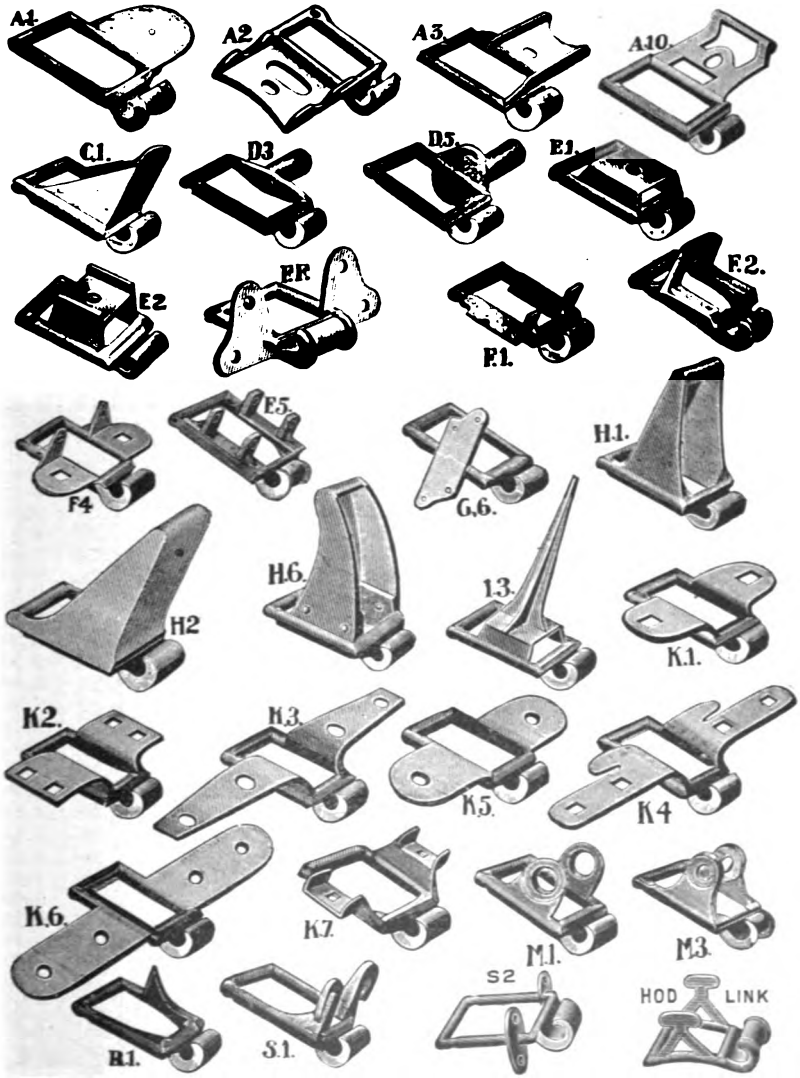

FIG. 2024.

For Prices, see page 749. For List, see page 750.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SPROCKET WHEELS.

No. 25.			No. 32.			Nos. 33 and 34.			Nos. 35, 45 and 55.		
Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.	Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.	Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.	Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.
2	7	.80	2½	7	.90	2¾	6	.90	2	4	.80
2¼	8	.85	3	8	.95	3	7	.95	2½	5	.90
2½	9	.90	3¼	9	1.05	3½	8	1.05	3	6	1.00
3¼	11	1.00	3¾	10	1.10	4	9	1.15	3½	7	1.10
3½	12	1.05	4	11	1.15	4½	10	1.25	4¼	8	1.25
3¾	13	1.10	4¼	12	1.20	5½	12	1.45	4¾	9	1.35
4	14	1.10	4¾	13	1.25	6¼	14	1.60	5¼	10	1.45
4¼	15	1.15	5¼	16	1.45	6¾	15	1.70	5¾	11	1.55
4½	16	1.20	8	22	1.80	7¼	16	1.80	6¼	12	1.65
5¼	18	1.30	8½	23	1.95	8½	19	2.00	6¾	13	1.75
5½	20	1.40	8¾	24	2.05	9	20	2.05	7¼	14	1.85
6	21	1.45	10	27	2.20	9¾	22	2.15	8	15	1.95
6¼	22	1.50	12	33	2.60	18¾	42	4.00	8¼	16	2.05
7	24	1.60	14	38	2.90	24	54	5.30	8¾	17	2.15
7½	26	1.70	16¼	44	3.30	28½	64	6.50	9¼	18	2.25
8	28	1.80							9¾	19	2.35
8¾	30	1.85							10¼	20	2.45
15	52	2.90							11¼	22	2.70
16	56	3.10							12	23	2.80
17¼	60	3.30							12½	24	2.90
18¼	64	3.80							13	25	3.00
20	70	4.20							13½	26	3.15
24	84	5.00							14	27	3.30
									14½	28	3.40
									15	29	3.50
									15½	30	3.60
									16	31	3.70
									16½	32	3.85
									17¼	34	4.05
									18	35	4.20
									18½	36	4.35
									20	38	4.55
									20¼	39	4.65
									20¾	40	4.80
									21¾	42	5.00
									22¾	44	5.25
									23¼	45	5.40
									23¾	46	5.60
									24¾	48	5.90
									25¾	50	6.35
									28	54	7.00
									30	58	7.50
									35¾	69	10.50
									41½	81	13.50
									42	82	14.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

No. 42.			No. 52.			Nos. 57, 67 and 77.			No. 62.		
Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.	Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.	Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.	Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.
2¼	5	1.00	3¼	7	1.10	4	5	1.35	4¼	8	1.40
2¾	6	1.05	3¾	8	1.20	4½	6	1.45	4¾	9	1.50
3¼	7	1.10	4¼	9	1.30	5¼	7	1.55	5¼	11	1.70
4¼	9	1.20	4¾	10	1.40	6	8	1.70	7½	14	2.00
4¾	11	1.35	5¼	12	1.55	6¾	9	1.85	8	15	2.10
5¾	13	1.45	6¼	13	1.65	7½	10	2.00	8½	16	2.20
6	14	1.60	6¾	14	1.75	8¼	11	2.15	9½	18	2.45
6½	15	1.70	7¼	15	1.85	9	12	2.30	10½	20	2.75
7	16	1.80	7½	16	1.95	9¼	13	2.50	11	21	2.90
7¾	18	1.95	8¼	17	2.05	10¼	14	2.70	11½	22	3.05
8¼	19	2.00	8½	18	2.20	11	15	2.85	12½	23	3.20
8¾	20	2.10	9	19	2.30	11¾	16	3.05	13½	25	3.50
9¼	22	2.25	9½	20	2.40	12½	17	3.25	14¾	28	3.95
10	23	2.35	10	21	2.50	13¼	18	3.45	15¾	30	4.25
10¼	24	2.40	11	23	2.70	14	19	3.65	18	34	4.85
11¾	27	2.70	12½	26	3.00	14¾	20	3.85	19	36	5.15
13	30	3.05	13	27	3.15	15½	21	4.05	20	38	5.45
14	32	3.25	14¼	30	3.50	16¼	22	4.25	21½	40	5.80
15¾	36	3.50	14¾	31	3.60	17	23	4.50	23	43	6.20
16¾	39	3.75	16¼	34	4.00	17¾	24	4.75	23¾	45	6.50
17¾	41	4.00	17	36	4.25	18¼	25	5.00	24¼	46	6.75
20	46	4.50	18	38	4.50	19	26	5.25	25¼	48	7.25
22	50	5.10	19¼	40	4.70	19¾	27	5.50	25¾	49	7.50
24	55	5.75	20¼	42	5.00	20½	28	5.75	30½	58	9.00
32	72	7.75	22	46	5.45	22	30	6.25	.....	.....	.....
.....	.....	.....	23½	49	5.80	23½	32	6.75	.....	.....	.....
.....	.....	.....	25	52	6.35	24¼	33	7.00	.....	.....	.....
.....	.....	.....	27	56	7.25	26½	36	7.75	.....	.....	.....
.....	.....	.....	30¾	64	8.00	28	38	8.25	.....	.....	.....
.....	.....	.....	33	70	8.75	29¼	40	8.75	.....	.....	.....
.....	.....	.....	.....	.....	.....	30	41	9.00	.....	.....	.....
.....	.....	.....	.....	.....	.....	32¼	44	9.75	.....	.....	.....
.....	.....	.....	.....	.....	.....	34½	47	10.90	.....	.....	.....
.....	.....	.....	.....	.....	.....	36	49	12.00	.....	.....	.....
.....	.....	.....	.....	.....	.....	38¼	52	13.50	.....	.....	.....
.....	.....	.....	.....	.....	.....	39¾	54	14.50	.....	.....	.....
.....	.....	.....	.....	.....	.....	41¼	56	15.50	.....	.....	.....
.....	.....	.....	.....	.....	.....	43¾	60	17.00	.....	.....	.....
.....	.....	.....	.....	.....	.....	47	64	21.00	.....	.....	.....
.....	.....	.....	.....	.....	.....	49	66	23.00	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SPROCKET WHEELS.

No. 25.			No. 32.			Nos. 33 and 34.			Nos. 35, 45 and 55.		
Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.	Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.	Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.	Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.
2	7	.80	2½	7	.90	2¾	6	.90	2	4	.80
2¼	8	.85	3	8	.95	3	7	.95	2½	5	.90
2½	9	.90	3¼	9	1.05	3½	8	1.05	3	6	1.00
3¼	11	1.00	3¾	10	1.10	4	9	1.15	3½	7	1.10
3½	12	1.05	4	11	1.15	4½	10	1.25	4¼	8	1.25
3¾	13	1.10	4¼	12	1.20	5½	12	1.45	4¾	9	1.35
4	14	1.10	4¾	13	1.25	6¼	14	1.60	5¼	10	1.45
4¼	15	1.15	5¾	16	1.45	6¾	15	1.70	5¾	11	1.55
4½	16	1.20	8	22	1.80	7¼	16	1.80	6¼	12	1.65
5¼	18	1.30	8½	23	1.95	8½	19	2.00	6¾	13	1.75
5¾	20	1.40	8¾	24	2.05	9	20	2.05	7¼	14	1.85
6	21	1.45	10	27	2.20	9¾	22	2.15	8	15	1.95
6¼	22	1.50	12	33	2.60	18¾	42	4.00	8¼	16	2.05
7	24	1.60	14	38	2.90	24	54	5.30	8¾	17	2.15
7½	26	1.70	16¼	44	3.30	28½	64	6.50	9¼	18	2.25
8	28	1.80	.....	.....	.....	.....	.....	.....	9¾	19	2.35
8¾	30	1.85	.....	.....	.....	.....	.....	.....	10¼	20	2.45
15	52	2.90	.....	.....	.....	.....	.....	.....	11¼	22	2.70
16	56	3.10	.....	.....	.....	.....	.....	.....	12	23	2.80
17¼	60	3.30	.....	.....	.....	.....	.....	.....	12½	24	2.90
18¼	64	3.80	.....	.....	.....	.....	.....	.....	13	25	3.00
20	70	4.20	.....	.....	.....	.....	.....	.....	13½	26	3.15
24	84	5.00	.....	.....	.....	.....	.....	.....	14	27	3.30
.....	.....	.....	.....	.....	.....	.....	.....	.....	14½	28	3.40
.....	.....	.....	.....	.....	.....	.....	.....	.....	15	29	3.50
.....	.....	.....	.....	.....	.....	.....	.....	.....	15½	30	3.60
.....	.....	.....	.....	.....	.....	.....	.....	.....	16	31	3.70
.....	.....	.....	.....	.....	.....	.....	.....	.....	16½	32	3.85
.....	.....	.....	.....	.....	.....	.....	.....	.....	17¼	34	4.05
.....	.....	.....	.....	.....	.....	.....	.....	.....	18	35	4.20
.....	.....	.....	.....	.....	.....	.....	.....	.....	18½	36	4.35
.....	.....	.....	.....	.....	.....	.....	.....	.....	20	38	4.55
.....	.....	.....	.....	.....	.....	.....	.....	.....	20¼	39	4.65
.....	.....	.....	.....	.....	.....	.....	.....	.....	20¾	40	4.80
.....	.....	.....	.....	.....	.....	.....	.....	.....	21¾	42	5.00
.....	.....	.....	.....	.....	.....	.....	.....	.....	22¾	44	5.25
.....	.....	.....	.....	.....	.....	.....	.....	.....	23¼	45	5.40
.....	.....	.....	.....	.....	.....	.....	.....	.....	23¾	46	5.60
.....	.....	.....	.....	.....	.....	.....	.....	.....	24¾	48	5.90
.....	.....	.....	.....	.....	.....	.....	.....	.....	25¾	50	6.35
.....	.....	.....	.....	.....	.....	.....	.....	.....	28	54	7.00
.....	.....	.....	.....	.....	.....	.....	.....	.....	30	58	7.50
.....	.....	.....	.....	.....	.....	.....	.....	.....	35¾	69	10.50
.....	.....	.....	.....	.....	.....	.....	.....	.....	41½	81	13.50
.....	.....	.....	.....	.....	.....	.....	.....	.....	42	82	14.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SPROCKET WHEELS.

No. 42.			No. 52.			Nos. 57, 67 and 77.			No. 62.		
Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.	Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.	Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.	Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.
2¼	5	1.00	3¼	7	1.10	4	5	1.35	4¼	8	1.40
2¾	6	1.05	3¾	8	1.20	4½	6	1.45	4¾	9	1.50
3¼	7	1.10	4¼	9	1.30	5¼	7	1.55	5¾	11	1.70
4¼	9	1.20	4¾	10	1.40	6	8	1.70	7½	14	2.00
4¾	11	1.35	5¼	12	1.55	6¾	9	1.85	8	15	2.10
5¾	13	1.45	6¼	13	1.65	7½	10	2.00	8½	16	2.20
6	14	1.60	6¾	14	1.75	8¼	11	2.15	9½	18	2.45
6½	15	1.70	7¼	15	1.85	9	12	2.30	10½	20	2.75
7	16	1.80	7½	16	1.95	9¼	13	2.50	11	21	2.90
7¾	18	1.95	8¼	17	2.05	10¼	14	2.70	11½	22	3.05
8¼	19	2.00	8½	18	2.20	11	15	2.85	12½	23	3.20
8¾	20	2.10	9	19	2.30	11¾	16	3.05	13¼	25	3.50
9¼	22	2.25	9½	20	2.40	12½	17	3.25	14¾	28	3.95
10	23	2.35	10	21	2.50	13¼	18	3.45	15¾	30	4.25
10½	24	2.40	11	23	2.70	14	19	3.65	18	34	4.85
11¾	27	2.70	12½	26	3.00	14¾	20	3.85	19	36	5.15
13	30	3.05	13	27	3.15	15½	21	4.05	20	38	5.45
14	32	3.25	14¼	30	3.50	16¼	22	4.25	21½	40	5.80
15¾	36	3.50	14¾	31	3.60	17	23	4.50	23	43	6.20
16¾	39	3.75	16¼	34	4.00	17¾	24	4.75	23¾	45	6.50
17¾	41	4.00	17	36	4.25	18¼	25	5.00	24¼	46	6.75
20	46	4.50	18	38	4.50	19	26	5.25	25¼	48	7.25
22	50	5.10	19¼	40	4.70	19¾	27	5.50	25¾	49	7.50
24	55	5.75	20¼	42	5.00	20½	28	5.75	30½	58	9.00
32	72	7.75	22	46	5.45	22	30	6.25	.....	.....	.....
.....	.....	.....	23½	49	5.80	23½	32	6.75	.....	.....	.....
.....	.....	.....	25	52	6.35	24¼	33	7.00	.....	.....	.....
.....	.....	.....	27	56	7.25	26½	36	7.75	.....	.....	.....
.....	.....	.....	30¾	64	8.00	28	38	8.25	.....	.....	.....
.....	.....	.....	33	70	8.75	29¼	40	8.75	.....	.....	.....
.....	.....	.....	.....	.....	.....	30	41	9.00	.....	.....	.....
.....	.....	.....	.....	.....	.....	32¼	44	9.75	.....	.....	.....
.....	.....	.....	.....	.....	.....	34½	47	10.90	.....	.....	.....
.....	.....	.....	.....	.....	.....	36	49	12.00	.....	.....	.....
.....	.....	.....	.....	.....	.....	38¼	52	13.50	.....	.....	.....
.....	.....	.....	.....	.....	.....	39¾	54	14.50	.....	.....	.....
.....	.....	.....	.....	.....	.....	41¼	56	15.50	.....	.....	.....
.....	.....	.....	.....	.....	.....	43¾	60	17.00	.....	.....	.....
.....	.....	.....	.....	.....	.....	47	64	21.00	.....	.....	.....
.....	.....	.....	.....	.....	.....	49	66	23.00	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SPROCKET WHEELS.

Nos. 75, 78 and 88.			Nos. 85 and 95.			No. 108.			Nos. 105 and 107.		
Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.	Pitch, Diameter, Inches.	No. of Teeth	Price, Each.	Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.	Pitch, Diameter, Inches.	No. of Teeth.	Price, Each.
5	6	1.65	7¾	6	2.60	7	7	2.60	11¾	6	4.50
5¾	7	1.80	10	8	3.25	8	8	2.80	15¾	8	4.90
6¾	8	2.00	12¾	10	4.00	9	9	3.00	19½	10	6.25
7½	9	2.20	13½	11	4.30	9¾	10	3.25	23½	12	7.75
8¼	10	2.40	16½	13	5.40	11¾	12	3.85			
9¼	11	2.60	17¾	14	5.70	12¾	13	4.20			
10	12	2.80	20¼	16	6.90	13¾	14	4.55	No. 108.		
10¾	13	3.00	24	19	8.70	15¾	16	5.25			
11¾	14	3.20	30¼	24	11.75	16¾	17	5.60			
12½	15	3.40	39½	31	19.25	17½	18	5.95	12½	8	4.50
14¼	17	3.90				19½	20	6.65	13¾	9	5.00
15¾	19	4.40				21½	22	7.35	16¾	11	6.00
17½	21	4.90	Short Tooth Sprockets			22½	23	7.70	20	14	7.50
18¼	22	5.15				23½	24	8.00			
20	24	5.65				25½	26	9.00			
20¾	25	5.90	12	9	3.65	30¼	31	11.50	No. 114.		
22½	27	6.40	14	11	4.30	32	33	12.50			
24¼	29	6.90	18	14	5.70	37¼	38	15.25			
25	30	7.15	21	16	6.90	40	41	16.75	8¼	8	3.60
26¾	32	7.85	23	18	7.80	41	42	17.50	14¾	14	6.00
28¼	34	8.55	24½	19	8.70	43	44	19.25	16¾	16	6.80
29¼	35	9.00	26	20	9.30	45	46	21.00	17¾	17	7.50
30	36	9.50	28	22	10.50	47	48	22.70	19½	19	9.00
31	37	10.00	31	24	11.75	47¾	49	23.50			
32¾	39	10.90	.....	.....	.....	.....	.....	.....			
33¼	40	11.40	.....	.....	.....	.....	.....	.....	No. 124.		
35¾	43	12.45	.....	.....	.....	.....	.....	.....			
36¾	44	12.80	.....	.....	.....	.....	.....	.....			
38¼	46	14.00	.....	.....	.....	.....	.....	.....	11¾	9	4.75
41¾	50	17.00	.....	.....	.....	.....	.....	.....	31	24	16.50
48½	58	22.50	.....	.....	.....	.....	.....	.....			

Additional Prices to be Added to List for Split Sprocket Wheels.

Diameter Inches.	No. of Link Belt.	Price, Each.	Diameter, Inches.	No. of Link Belt.	Price, Each.
6 to 12	25 to 52	1.70	24¼ to 36	32 to 52	2.90
6 to 12	57 to 77	1.85	24¼ to 36	57 to 77	3.20
6 to 12	78 to 95	2.00	24¼ to 36	78 to 95	3.60
6 to 12	103 to 160	2.20	24¼ to 36	103 to 160	4.00
12¼ to 24	25 to 52	2.35	36¼ to 60	57 to 77	4.60
12¼ to 24	57 to 77	2.50	36¼ to 60	78 to 95	6.00
12¼ to 24	78 to 95	2.65	36¼ to 60	103 to 160	7.80
12¼ to 24	103 to 160	2.80	Above 60	78 to 160	12.00

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STEEL ELEVATOR BUCKETS.

THE W. M. PATTISON SUPPLY CO. CLEVELAND 755

UNFINISHED.

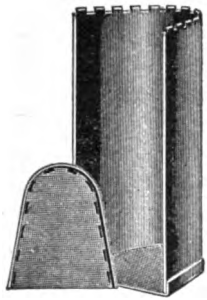

FIG. 2025.

FINISHED.

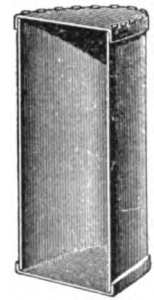

FIG. 2026.

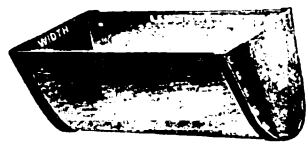

FIG. 2027.

These Buckets Are Made of Open Hearth Polished Steel.

Low Front Buckets furnished when required, by cutting the front down from one to two inches lower than the back, according to the width.

For Mills, Elevators, Ear Corn, Cobs, etc., use Buckets made of gauges, 18, 16 and 14. For Clay, Ores, Broken Stone, Coal, Sand, etc., use Buckets made of gauges, 12, 10, 8 and 6.

For prices, etc., see page 756.

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STEEL ELEVATOR BUCKETS.

Width on Belt, Inches.	Projection from Belt, Inches.	PRICE, EACH.					Width on Belt, Inches.	Projection from Belt, Inches.	PRICE, EACH.					
		No. 18 Gauge.	No. 16 Gauge.	No. 14 Gauge.	No. 12 Gauge.	No. 10 Gauge.			No. 16 Gauge.	No. 14 Gauge.	No. 12 Gauge.	No. 10 Gauge.	No. 8 Gauge.	No. 6 Gauge.
4	4	.40	.53	.66	.....	.....	18	6	1.35	1.59	1.98	2.28	.....	.....
4½	4	.41	.55	.68	.....	.....	19	6	1.40	1.65	2.05	2.35	.....	.....
5	4	.42	.56	.70	.....	.....	20	6	1.45	1.71	2.11	2.42	.....	.....
5½	4	.43	.58	.72	.....	.....	21	6	.....	.....	2.18	2.50	.....	.....
6	4	.44	.59	.74	.....	.....	22	6	.....	.....	2.25	2.58	.....	.....
7	4	.46	.62	.78	.....	.....	23	6	....	.....	2.32	2.66	.....	.....
8	4	.48	.65	.82	.....	.....	24	6	.....	.....	2.39	2.74	.....	.....
9	4	.50	.68	.86	.....	.....	10	7	1.03	1.18	1.48	1.78	2.13	.....
10	4	.52	.71	.90	.....	.....	11	7	1.08	1.24	1.55	1.86	2.21	.....
11	4	.54	.74	.94	.....	.....	12	7	1.13	1.30	1.62	1.94	2.29	.....
12	4	.56	.77	.98	.....	.....	13	7	.....	1.36	1.69	2.02	2.37	.....
6	5	.45	.60	.75	.98	.....	14	7	.....	1.42	1.76	2.10	2.45	.....
7	5	.50	.64	.79	1.05	.....	15	7	.....	1.48	1.83	2.18	2.53	.....
8	5	.55	.68	.85	1.12	.....	16	7	.....	1.54	1.90	2.26	2.63	.....
9	5	.60	.73	.91	1.19	.....	17	7	.....	1.60	1.97	2.34	2.73	.....
10	5	.65	.78	.97	1.26	.....	18	7	.....	1.66	2.04	2.42	2.83	.....
11	5	.70	.83	1.03	1.33	.....	19	7	.....	1.72	2.11	2.50	2.93	.....
12	5	.75	.88	1.09	1.40	.....	20	7	.....	1.80	2.18	2.58	3.03	.....
13	5	.....	.93	1.14	1.47	.....	21	7	.....	1.86	2.25	2.68	3.13	.....
14	5	.....	.98	1.19	1.54	.....	22	7	.....	1.92	2.32	2.78	3.23	.....
15	5	.....	1.03	1.24	1.62	.....	23	7	.....	1.98	2.39	2.88	3.33	.....
16	5	.....	1.08	1.29	1.70	.....	24	7	.....	2.04	2.46	2.98	3.43	.....
17	5	.....	1.13	1.34	1.78	.....	12	8	.....	1.67	1.97	2.30	2.80	3.40
18	5	.....	1.18	1.39	1.86	.....	13	8	.....	1.73	2.03	2.37	2.88	3.50
19	5	.....	1.24	1.44	1.94	.....	14	8	.....	1.79	2.09	2.44	2.97	3.61
20	5	.....	1.28	1.49	2.02	.....	15	8	.....	1.85	2.15	2.51	3.07	3.71
9	6	.....	.90	1.05	1.35	1.65	16	8	.....	1.91	2.21	2.58	3.15	3.82
10	6	.....	.95	1.11	1.42	1.72	17	8	.....	1.97	2.27	2.65	3.24	3.92
11	6	.....	1.00	1.17	1.49	1.79	18	8	.....	2.03	2.33	2.72	3.34	4.03
12	6	.....	1.05	1.23	1.56	1.86	19	8	.....	2.09	2.39	2.79	3.42	4.13
13	6	.....	1.10	1.29	1.63	1.93	20	8	.....	2.15	2.45	2.86	3.51	4.24
14	6	.....	1.15	1.35	1.70	2.00	21	8	.....	.....	2.51	2.93	3.61	4.34
15	6	.....	1.20	1.41	1.77	2.07	22	8	.....	.....	2.57	3.00	3.69	4.45
16	6	.....	1.25	1.47	1.84	2.14	23	8	.....	.....	2.63	3.07	3.78	4.55
17	6	.....	1.30	1.53	1.91	2.21	24	8	.....	.....	2.69	3.14	3.88	4.66

Buckets furnished 4, 5, 6, 7 and 8 inches wide and deep, their depth being the same as their width, or projection from belt, any length required. Prices furnished on application for lengths not listed above. We also furnish buckets 4½ inches wide and deep, of No. 18 Gauge Steel, only. They take the same list as the 5-inch buckets.

When ordering buckets for old belt, send template, showing exact size and location of bolt holes.

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THE W. M. PATTISON SUPPLY CO. 757 CLEVELAND

OILERS.

ZINC OILER.

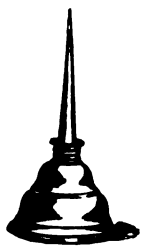

FIG. 2028.

MALLEABLE IRON OILER.

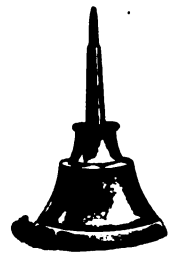

FIG. 2029.

Zinc Oilers.

Number	00	0	1	2	3	4	5	6
Diameter .....inches	2⅛	2¼	2¾	3⅜	3½	4¼	4½	4⅞
Price.....per dozen	1.00	1.25	1.50	2.00	2.25	2.75	3.50	4.50

Malleable Iron Oilers.

Number	1	2	3
Diameter.....inches	3⅛	3⅜	3¾
Price..... per dozen	3.60	4.00	4.40

STEEL AND BRASS OILERS.

FIG. 2030.

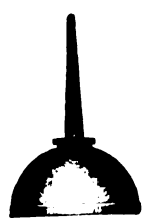

FIG. 2031.

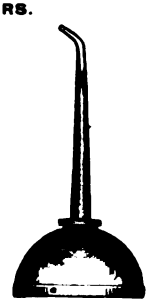

FIG. 2032.

Bronzed Steel Oilers.

Number	12	13	13 A	14	14 A	14 A A	14 B	15	15 A	16
Diameter.....inches	2¾	3⅜	3⅜	3¾	3¾	3¾	3¾	4¼	4¼	4¼
Nozzle.....inches	2½	3	5	9	3	5	9	3	5	9
Price.....per dozen	4.50	5.50	6.00	6.50	7.50	8.00	8.50	9.25	9.75	10.50

Brass Oilers.

Number	120	130	140	140 A	140 B	150	160
Diameter..... inches	2¾	3⅜	3⅜	3¾	3¾	4¼	4¼
Nozzle.....inches	2½	3	9	3	9	3	9
Price .....per dozen	6.50	8.00	9.20	10.00	11.25	12.00	14.00

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OILERS.

NON-MELTING SOLID STEEL OILER.

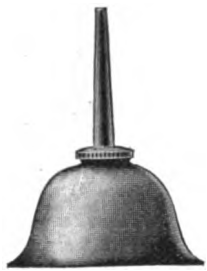

FIG. 2033.

OILER WITH NOZZLE CLEANING DEVICE.

FIG. 2034.

Non-Melting Solid Steel Oilers.

Number	1	2
Diameter ..... inches	3¾	3¾
Nozzle ..... inches	3	9
Price ..... per dozen	6.00	7.00

Oilers with Nozzle Cleaning Device.

Capacity ..... pints	¼	½	½	1	1	1
Nozzle ..... inches	4	6	9	4	6	9
Price, Steel ..... per dozen	6.00	6.50	7.00	8.00	8.50	9.00
Price, Brass ..... per dozen	9.00	8.50	10.00	11.00	11.50	12.50

FIG. 2035.

Polished Tin Engine Oilers.

Capacity	1 Pint	1½ Pint	1 Quart	2 Quart
Price ..... per dozen	3.75	4.25	4.50	6.00

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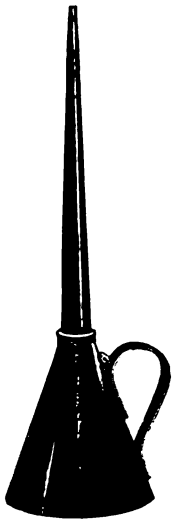

FIG. 2038.

BRAZED STEEL PYRAMID OILERS.

A Vent Controls the Flow of Oil; Any Length Nozzle, Straight or Curved, all Sizes Interchangeable.

Number	30	31	32
Capacity	1 pint	1 quart	2 quarts
Nozzle ..... inches	8	10	12
Price ..... per dozen	9.00	10.00	12.00

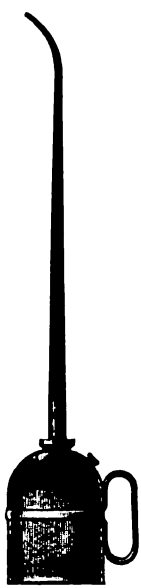

FIG. 2037.

STEEL AND BRASS RAILROAD OILERS.

Bronzed Steel Oilers.

Number	10	11	111
Capacity	1 pint	1 quart	2 quarts
Diameter ..... inches	3⅜	4⅛	5
Height ..... inches	5	6	8
Nozzle ..... inches	12	18	10 or 14
Price ..... per dozen	14.00	18.00	20.00

Brass Oilers.

Number	17	18	18 A
Capacity	1 pint	1 quart	2 quarts
Diameter ..... inches	3⅜	4⅛	5
Height ..... inches	5	6	8
Nozzle ..... inches	12	18	10 or 14
Price ..... per dozen	18.00	21.00	24.00

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OILERS.

TIN STOP OILER.

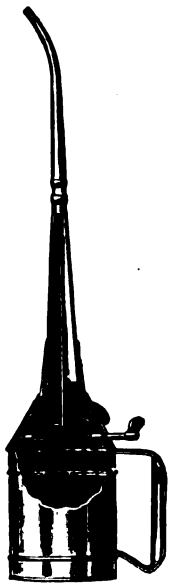

FIG. 2038.

FIG. 2039.

TIN AND BRASS PUMP PRESSURE OILER.

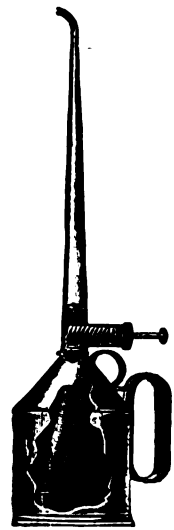

FIG. 2040.

STEEL PUMP OILER.

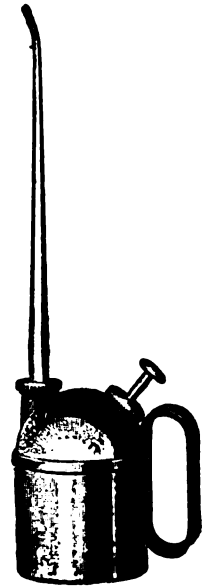

FIG. 2041.

Tin Oilers.

Number and Height.....inches	15	17	21	27	32
Capacity.....	2 Qts. for Valve Oil	1 Pint	1 Quart	1 Quart	3 Pints
Price.....per dozen	24.00	24.00	24.00	24.00	24.00

Tin and Brass Pressure Oilers.

Number.....	0	1	2	3
Capacity.....	½ Pint	1 Pint	1½ Pint	1 Quart
Nozzle.....inches	6	8	12	20
Price, Tin.....per dozen	7.00	8.00	9.00	10.00
Price, Brass.....per dozen	12.00	14.00	16.00	18.00

Steel Oilers.

Number.....	1000	2000	3000	4000
Capacity.....	1 Pint	1½ Pint	1 Quart	2 Quarts
Diameter.....inches	3¾	3¾	4⅛	5
Nozzle.....inches	9	12	15	18
Price.....per dozen	30.00	40.00	50.00	60.00

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THE W. M. PATTISON SUPPLY CO. 761 CLEVELAND

ENGINEERS' AND STEAMBOAT OILER SETS.

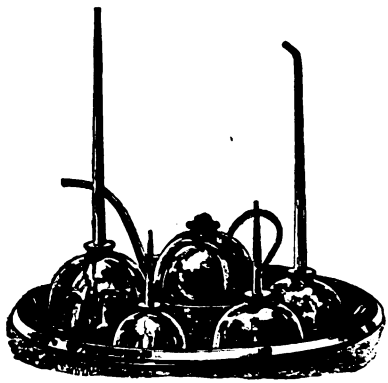

FIG. 2042.

Engineers' Sets, with Round Tray.

Price, Number 30, Five Pieces, Copper Plated, Including Tray..per set	5.00
Price, Number 40, Six Pieces, Copper Plated, Including Tray..per set	7.00
Price, Number 50, Five Pieces, Nickel Plated, Including Tray..per set	7.00
Price, Number 60, Six Pieces, Nickel Plated, Including Tray..per set	10.00

Engineers' Sets, with Oval Tray.

Price, Number 35, Five Pieces, Copper Plated, Including Tray..per set	7.00
Price, Number 45, Six Pieces, Copper Plated, Including Tray..per set	10.00
Price, Number 55, Five Pieces, Nickel Plated, Including Tray..per set	8.00
Price, Number 65, Six Pieces, Nickel Plated, Including Tray..per set	11.00

Engineers' Sets.

Price, Number 30, Five Pieces of Brass, Including Tray.....per set	6.00
Price, Number 40, Six Pieces of Brass, Including Tray.....per set	9.00
Price, Number 50, Five Pieces of Brass, Nickel Plated, Inc. Tray per set	8.00
Price, Number 60, Six Pieces of Brass, Nickel Plated, Inc. Tray per set	11.00

Steamboat Sets, with Round Double Tray.

Price, Number 70, Five Pieces, Copper Plated, Including Tray..per set	6.00
Price, Number 80, Six Pieces, Copper Plated, Including Tray..per set	9.00
Price, Number 90, Five Pieces, Nickel Plated, Including Tray..per set	8.00
Price, Number 100, Six Pieces, Nickel Plated, Including Tray..per set	11.00

Steamboat Sets, with Oval Double Tray.

Price, Number 75, Five Pieces, Copper Plated, Including Tray..per set	9.00
Price, Number 85, Six Pieces, Copper Plated, Including Tray..per set	12.00
Price, Number 95, Five Pieces, Nickel Plated, Including Tray..per set	10.00
Price, Number 105, Six Pieces, Nickel Plated, Including Tray..per set	13.00

Steamboat Sets.

Price, Number 70, Five Pieces of Brass, Including Tray.....per set	7.00
Price, Number 80, Six Pieces of Brass, Including Tray.....per set	10.00
Price, Number 90, Five Pieces of Brass, Nickel Plated, Inc. Tray per set	9.00
Price, Number 100, Six Pieces of Brass, Nickel Plated, Inc. Tray per set	12.00

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STEEL, COPPER AND BRASS NOZZLES FOR OILERS.

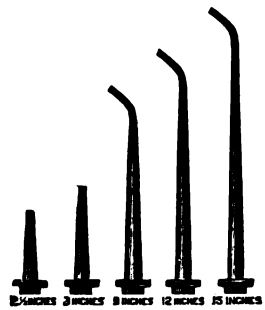

FIG. 2043.

Steel.

Length .....inches	2½	3	5	Brazed 9	Brazed 12	Brazed 18
Price.....per dozen	2.25	2.75	3.25	4.25	5.75	7.00

Brazed, Copper and Brass.

Length .....inches	2½	3	5	9	12	18
Price.....per dozen	3.00	3.50	4.25	5.00	6.25	7.50

PIT CAR OILERS.

FIG. 2044.

FIG. 2045.

FIG. 2046.

FIG. 2047.

	No. 1.	No. 2.	No. 3.	No. 4.
Number.....	1	2	3	4
Capacity.....gallons	½	¾	1	1½
Nozzle .....inches	12	5	5	5
Discharge at each operation.....ounces	½₀ to 1¼	½₀ to 1¼	½₀ to 1¼	¾ to 3½
Price .....each	4.75	5.00	6.50	7.50

These Oilers are designed for rough usage. They will operate in any position and discharge a given quantity of oil at one movement of the operating mechanism. The range of the movement is adjustable. No oil can escape except by a movment of the discharge plunger.

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ENGINEERS' FILLERS AND TALLOW POTS.

THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEEL AND BRASS FILLER.

FIG. 2048.

TIN TALLOW POT

FIG. 2049.

STEEL TALLOW POT.

FIG. 2050.

Bronzed Steel and Brass Fillers.

Number	19	19 A	210	211	190	200	201
Capacity	1 Pint	1½ Pints	1 Quart	2 Quarts	1½ Pints	1 Quart	2 Quarts
Diameter.....inches	4¼	4¾	5	6	4¾	5	6
Height.....inches	3½	4	5	6	4	5	6
Price, Bronzed Steel..per dozen	14.00	17.00	20.00	24.00	.....	.....	.....
Price, Brass.....per dozen	.....	.....	.....	.....	22.00	30.00	34.00

Tin Tallow Pots.

Capacity	2 Quarts
Price.....per dozen	24.00

Bronzed Steel Tallow Pots.

Number	212	213
Capacity	1 Quart	2 Quarts
Diameter.....inches	5	6
Height.....inches	5	6
Price.....per dozen	21.00	25.00

BRAZED STEEL TALLOW POTS.

FIG. 2051.

Number	40	41
Capacity	½ gallon	1 gallon
Price.....per dozen	15.00	18.00

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TORCHES OR LAMPS.

MALLEABLE IRON ENGINE TORCH.

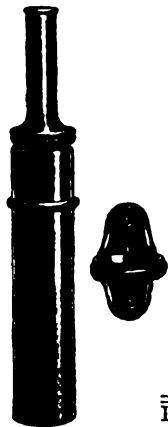

FIG. 2052.
No. 120.

MALLEABLE IRON SHOP OR ENGINEERS' TORCH.

FIG. 2053.
No. 115.

BRAZED STEEL LOCOMOTIVE OR ENGINEERS' TORCH.

FIG. 2054
No. 110.

Price, No. 120, 2 inches diameter; 13½ inches high, with Bracket.per doz.	8.00
Price, No. 115, 4 inches diameter; 9½ inches high.....per doz.	8.00
Price, No. 110.....per doz.	9.00

CAST FURNACE LAMP.

FIG. 2055.

BRAZED STEEL PYRAMID TORCH.

FIG. 2056.

BRAZED STEEL BROAD TOP TORCH.

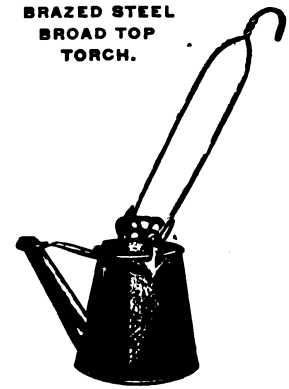

FIG. 2057.

Number	1	2	80	81	82	83	84	85	86
Capacity	2 Pints	3 Pints	½ Pint	1 Pint	1 Quart	1 Quart	2 Quarts	2 Quarts	4 Quarts
Number of Burners	.....	.....	1	1	1	2	1	2	2
Price, Furnace Lamp.....per dozen	7.50	9.00	.....	.....	.....	.....	.....	.....	.....
Price, Pyramid Torch.....per dozen	.....	.....	7.00	9.00	10.00	11.00	12.00	13.00	15.00

Number	87	90	91	92	93	94	95	96	.....
Capacity	4 Quarts	1 Pint	1 Quart	1 Quart	2 Quarts	2 Quarts	1 Gallon	1 Gallon	.....
Number of Burners	3 or 4	1	1	2	1	2	2	3 or 4	.....
Price, Pyramid Torch .....per dozen	18.00	.....	.....	.....	.....	.....	.....	.....	.....
Price, Broad Top Torch...per dozen	.....	9.00	10.00	11.00	12.00	13.00	15.00	18.00	.....

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THE W. M. PATTISON SUPPLY CO. 765 CLEVELAND

TORCHES AND LAMPS.

FIG. 2058.

No. 26.

INSPECTORS' AND LOCOMOTIVE TORCHES

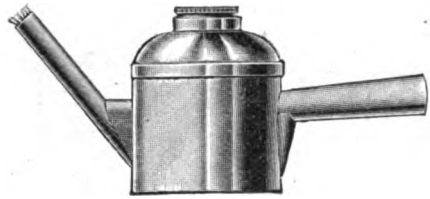

FIG. 2059.

No. 27.

Bronzed Steel Inspectors' and Locomotive Torches.

Number	26	27	28
Diameter.....inches	2	4⅛	5¼
Height.....inches	15	4½	4¼
Price, with Brass Cap and Tube.....per dozen	12.00	12.00	15.00

TIN FLUE LAMP.

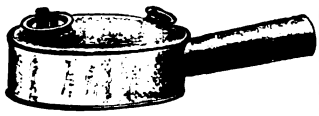

FIG. 2060.

STEEL JACKET LAMP.

FIG. 2061.

SEAMLESS STEEL LAMP.

FIG. 2062.

Pieced Tin Flue Lamps.

Price, 4 inches long, 2¼ inches wide, 1⅜ inches high.....per dozen	3.00

Bronzed Steel Jacket Lamps.

Number	20	20½	21
Diameter.....inches	3⅜	3¾	4⅛
Price.....per dozen	6.00	9.00	12.00

Seamless Bronzed Steel Lamps.

Number	22	23	24
Diameter.....inches	3¼	4	4⅞
Price.....per dozen	9.00	12.00	15.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TIN TUBULAR LANTERNS.

SIDE SPRING SAFETY. HOT BLAST.

FIG. 2063.
No. 0.

SIDE SPRING SAFETY. HOT BLAST.

FIG. 2064.
No. 2.

CLIPPER LIFT. COLD BLAST.

FIG. 2065.
No. 2.

Railroad Lanterns, for Sperm or Kerosene Oil.

TIN BOTTOM.

FIG. 2066.
No. 39.

WIRE BOTTOM.

FIG. 2067.
No. 39.

Figure, Number.	Lantern, Number.	Globe, Number.	Burner, Number.	Size of Wick, Inches.	Price, With Plain Globe, Per Dozen.	Price, With Ruby, Green or Blue Globe, Per Dozen.	Price, With Green or Blue Globe, Per Dozen.	Price, With Ruby Globe, Per Dozen.
2063	0	0	1	⅞	9.50	12.50	.....	.....
2064	2	0	2	1–"B"	13.00	16.00	.....	.....
2065	1	0	1	⅞–"A"	13.50	16.50	.....	.....
2065	2	0	2	1–"B"	16.00	19.00	16.00	20.00
2066	39	.....	1	.....	11.50	.....	16.50	20.50
2067	39	.....	1	.....	12.00	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. 767 CLEVELAND

LAMPS, ETC.

GLOBE TUBULAR STREET LAMP.

FIG. 2068.
No. 9.

SQUARE TUBULAR STREET LAMP.

FIG. 2069
No. 10.

TUBULAR SEARCHLIGHT.

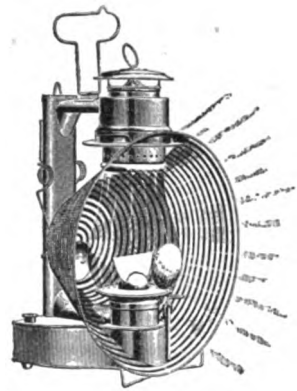


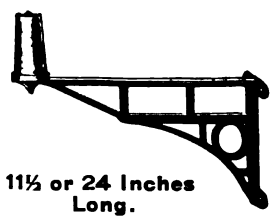
FIG. 2070.
No. 20.

TURNED WOOD POST.

8 FEET ABOUT GROUND, 2 FEET UNDER GROUND

FIG. 2071.

IRON BRACKET.



11½ or 24 Inches Long.

FIG. 2072.

Figure, Number.	Lamp, Number.	Globe, Number.	Burner, Number.	Wick, Inches.	Reflector, Diameter. Inches.	Reflector, Depth. Inches.	Price, Japanned, Tin Fount; Bull's Eye Globe, Per Dozen.	Price, Tin Fount, Per Dozen.	Price, Wood Posts, Each.	Price, Brackets, Each.
.....	9	9	9	1½ "D"	.....	.....	.....	6.00	.....	.....
.....	10	.....	10	1½ "D"	.....	.....	.....	8.00	.....	.....
.....	20	0	2	1 "B"	12x7		30.00	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	2.50	1.20

If Fig. 2070, No. 20, is furnished without Bull's Eye Globe deduct 50 cents.

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THE W. M. PATTISON SUPPLY CO. 768 CLEVELAND

TUBULAR LAMPS.

SQUARE.

FIG. 2073.
No. 6.

SQUARE.

FIG. 2074.
No. 7.

SQUARE

FIG. 2075.
No. 8.

TRIANGULAR.

FIG. 2076.
No. 5.

Figure. Number.	Lamp. Number.	Burner. Number.	Wick. Inches.	Silvered Glass Reflector. Inches.	DIMENSIONS. INCHES.			Price. Per Dozen.
					Height.	Width.	Depth.	
2073	6	2	1 – "B"	6	16¾	8¾	7½	5.50
2074	7	7	1½ – "D"	8	22½	11½	10½	6.50
2075	8	8	1½ – "D"	10	24½	13½	11½	8.50
2076	5	5	1½ – "D"	10	.....	.....	.....	8.50

If Nos. 6, 7 and 8 are guarded add to list 1.00.
Prices do not include Chimneys.

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THE W. M. PATTISON SUPPLY CO. 769 CLEVELAND

LANTERN GLOBES.

TUBULAR.

FIG. 2077.
No. 0.

COLD BLAST.

FIG. 2078.
No. 0.

BULL'S EYE TUBULAR.

FIG. 2079.
No. 0.

COLD BLAST BULL'S EYE.

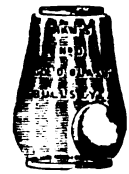

FIG. 2080.
No. 0.

RAILROAD.

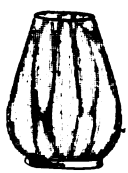

FIG. 2081.
No. 39.

RAILROAD BULL'S EYE.

FIG. 2082.
No. 39.

STREET.

FIG. 2083.
No. 9.

Number.		Price, White, Per Dozen.	Price, Green or Blue, Per Dozen.	Price, Ruby, Per Dozen.
0	Common Tubular Globes	.90	3.50	3.50
0	Cold Blast Globes..	1.20	4.00	4.00
0	Common Bull's Eye Globes	1.92	.....	.....
0	Common Cold Blast Bull's Eye Globes	2.40	.....	.....
0	Flint Tubular Globes	3.00	10.00	13.00
39	Common Railroad Globes	1.50	4.00	4.00
39	Common Bull's Eye Globes	2.00	.....	.....
39	Flint Railroad Globes	3.00	8.00	12.00
9	Street and Hanging Lamp Globe	6.40	50.00	60.00

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LANTERN BURNERS, ETC.

TUBULAR.

FIG. 2084.

No. 1.

TUBULAR.

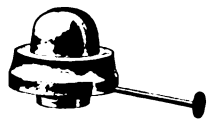

FIG. 2085.

No. 2.

GLOBE TUBULAR.

FIG. 2086.

No. 9.

BEACON.

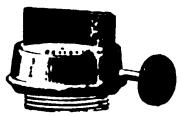

FIG. 2087.

No. 1.

SANGSTER.
KEROSENE.

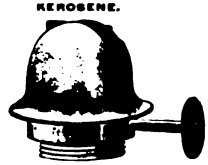

FIG. 2088.

No. 1.

RAILROAD.
SPERM AND KEROSENE OIL.

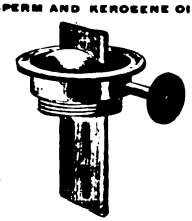

FIG. 2089.

No. 1.

CONVEX.

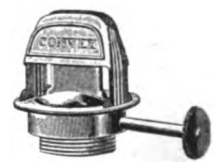

FIG. 2090.

No. 1.

Burner, Number.	Wick, Inches.	Price, Tubular, Per Dozen.	Price, Globe Tubular, Per Dozen.	Price, Beacon, Per Dozen.	Price, Sangster, Per Dozen.	Price, Railroad, Per Dozen.	Price, Convex, Per Dozen.
1	§-"A"	.70	.....	.....	.72	.72	.72
1	1 -"B"	.....	.....	1 .00	.....	.96	.....
2	1 -"B"	1.50	.....	.....	.....	.....	1.20
9	.....	....	4.00	.....	.....	.....	.....

Chimneys.

Number.....	1	2
Price, Chimneys for Square Station Lamps.....per dozen	.80	1.10
Price, Straight Sun Chimneys for Station Lamps.per dozen	1.00	1.28

Wicks.

Number.....	1"A"	2"B"	3"D"
Price..... per gross	.56	.80	1.28

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THE W. M. PATTISON SUPPLY CO. 771 CLEVELAND

TORCHES.

VAPOR.

FIG. 2091.
No. 100.

KEROSENE.

FIG. 2092.
No. 101.

VAPOR.

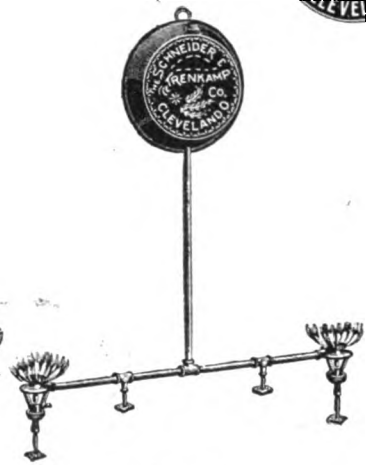

FIG. 2093.
No. 102.

GIANT VAPOR.

FIG. 2094.
No. 104.

Vapor, Kerosene and Giant Vapor Torches.

Number	100 and 101	102 and 104
Price.....per dozen	24.00	42.00

FOR GASOLINE OR ALCOHOL, WITH BLOW TUBE.

FIG. 2095.
No. 12.

GASOLINE OR KEROSENE.

FIG. 2096.
No. 22.

Number	12	22
Diameter.....inches	$\frac{7}{8}$	$1\frac{3}{4}$
Height.....inches	6	$6\frac{1}{2}$
Price.....each	1.50	1.50

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

THE BUCKEYE LIGHT.

FIG. 2097.

Number.	Candle Power.	Oil Consumed, Per Hour, Gallons.	Tank, Inches.	Price, Each.	Price, Extra Burner, Each.	Price, Masting Arrangement to Elevate Light 9 to 12 Feet, Each.	Price, Carriages, Each.	Price, Tripod Attachment With 10 Feet of Hose and Couplings, Each.
1	1000	½	10x16	55.00	8.00	.....	.....	16.00
2	1000 to 1500	¾	16x22	75.00	9.00	.....	.....	16.00
3	2000 to 2500	1¼	18x27	100.00	12.50	18.00	16.50	16.00
5	4000	1¾	18x27	110.00	20.00	20.00	.....	16.00
*A	4000	.....	18x27	125.00	.....	.....	.....	16.00
Jumbo	5000	2	24x32	175.00	25.00	25.00	25.00	16.00
*B	8000	.....	24x32	175.00	25.00	.....	.....	16.00

* A and B are double lights.

Masting arrangement with pole 15 feet long fitted to raise and lower burner, complete with all necessary fittings and 10 feet of hose 35.00. Price for same outfit for A and B lights 42.00.

A portable light having the power within itself, generated from kerosene oil forced by compressed air to a burner which is heated before the oil is turned on.

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BLOW PIPES.

FIG. 2098.
No. 1.

FIG. 2099.
No. 2.

Length.....inches	7	8	9	10
Price No. 1.....per dozen	1.50	2.00	2.50	3.00
Price No. 2.....per dozen	3.00	4.00	5.00	6.00

BRAZING BLOW PIPES.

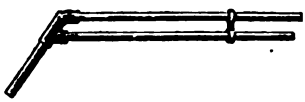

FIG. 2100.
No. 8 B.

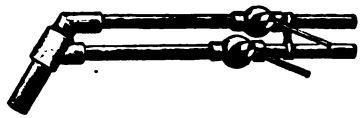

FIG. 2101.
No. 8 F.

Number.....	8B	8C	8E	8F
Air Jet.....inches	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{5}{16}$
Gas Supply.....inches	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$
Price.....each	1.75	2.50	3.50	4.25

Nos. 8 C, E and F have two lever stop cocks. Nos. 8 B and C require Nos. 9 A or 10 A Foot Blower. Nos. 8 E and 8 F require Nos. 9 B or 10 B Foot Blower.

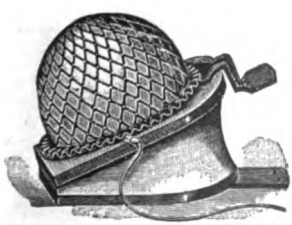

FIG. 2102.
Nos. 9, 9A or 9B.

FIG. 2103.
Nos. 10, 10A or 10B.

Foot Blowers.

Number.....	9	9 A	9 B	10	10 A	10 B
Price.....each	4.00	5.00	7.00	5.00	6.00	8.00

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GASOLINE AND GAS SOLDERING IRON HEATERS, ETC.

GASOLINE SOLDERING IRON HEATER.

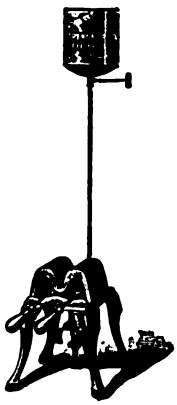

FIG. 2104.
No. 95.

GAS OR GASOLINE SOLDERING IRON HEATER.

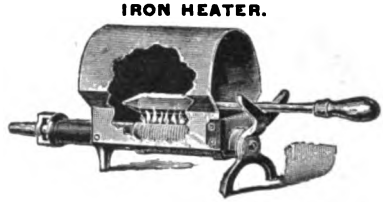

FIG. 2105.
No. 18B.

Gasoline and Gas Soldering Iron Heaters.

Price, No. 95 Gasoline Soldering Iron Heater	each	7.00
Price, No. 18 B Gasoline Soldering Iron Heater	each	1.45
Price, No. 18 B Gas Soldering Iron Heater	each	1.25

COMBINATION GAS MELTING AND SOLDERING IRON HEATER.

FIG. 2106.
No. 18A.

GAS TOOL FORGE.

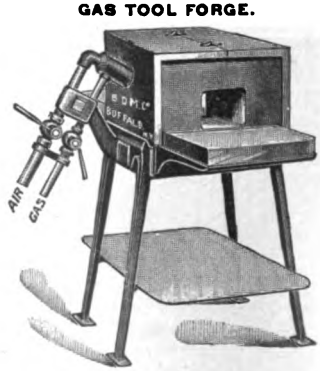

FIG. 2107.
No. 19.

Price, No. 18 A Combination Gas Melting and Soldering Iron Heater	each	2.75
Price, No. 19 Gas Tool Forge	each	10.00

Dimensions of Gas Tool Forge.

Fire Box: 9 inches long, 7 inches wide and 6 inches high. Frame 12 inches high.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

GASOLINE TORCHES AND BURNERS.

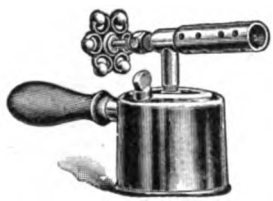

FIG. 2108.
No. 8.

FIG. 2109.
No. 2 and 7.

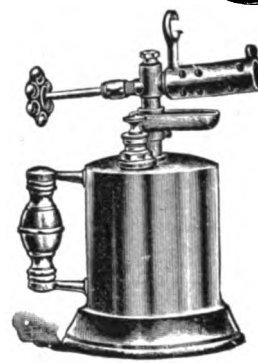

FIG. 2110.
No. 6 and 9.

Number	2	5	6	7	8	9
Capacity	1 Quart	1 Quart	1 Quart	1 Pint	1 Pint	1 Pint
Price, Polished Brass.....each	5.00	6.00	6.00	4.50	4.00	5.00
Price, Nickel Plated.....each	5.50	6.50	6.50	5.00	4.50	5.50

No. 5 has Twin Burner for use on both inside and outside work.

PAINT BURNER.

FIG. 2111.
No. 197.

BRAZIER BURNERS.

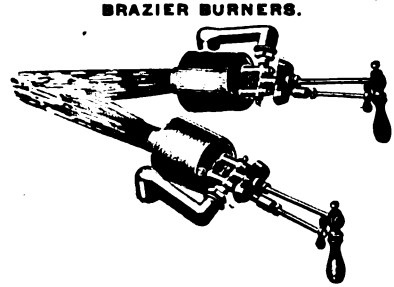

FIG. 2112.

Paint and Brazier Burners.

Price, No. 197 Paint Burners.....each	5.00
Price, Brazier Burners with Swivel Connecting Arm.....complete	5.50

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GASOLINE FURNACES.

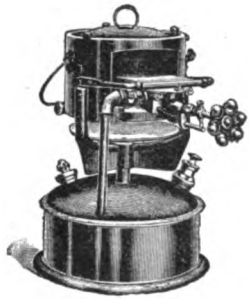

FIG. 2113.
Nos. 1, 5 and 6.

FIG. 2114.
Nos. 10 and 11.

FIG. 2115.
Nos. 12 and 20.

Number	1	5	6	10	11	12	20
Price.....each	12.00	9.00	8.00	6.00	7.00	7.50	6.50

RELIABLE.

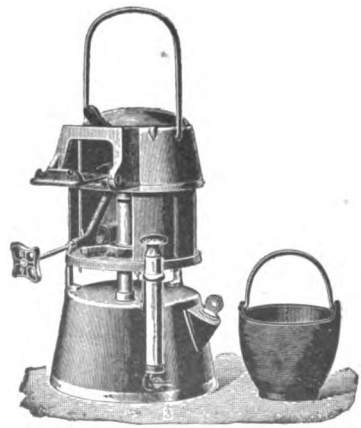

FIG. 2116.
No. 196.

Number	196
Price complete.....each	7.00

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THE W. M. PATTISON SUPPLY CO. 777 CLEVELAND

BUCKEYE HEATER.

FIG. 2117.

RIVET FORGE.

FIG. 2118.

Shrinkers, Braziers and Expanders.

Number	1	* 3 x	3
Price, to burn Gasoline ..... each	50.00	.....	.....
Price, to burn Kerosene ..... each	60.00	80.00	120.00

Buckeye, Klondike Heaters and Locomotive Fire Kindlers.

Price, Buckeye and Klondike Heaters ..... each	75.00
Price, Locomotive Fire Kindlers ..... each	100.00

Tire Expanders.

Number	7	† x	x x
Price	25.00	115.00	200.00

Rivet Forges.

Number	B	A
Price ..... each	95.00	105.00

* Number 3 x Shrinker is supplied with the same burner but fitted with No. 2 Buckeye Light Tank and fittings, see page 772.

Buckeye Heaters furnish a hot powerful flame which can be hung or adjusted to such requirements. Klondike Heaters are made for thawing frozen ground.

Locomotive Fire Kindlers are mounted on a two wheel truck, the flame is adjustable, either right angle or straight.

Tire Expanders are an economical and quick method of expanding tires and straightening bent frames and sides of steel cars, etc. The burner is made in segments to encircle the wheel.

† No. x Expander consists of BURNER ONLY which is adapted to No. 3 Buckeye Light Tank: Rivet Forges, will heat about 2000 rivets per day, size approximating ¾ inch diameter 3½ inches long.

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OIL CANS.

GALVANIZED.

WITH SPOUT.

FIG. 2119.

WITH FAUCET.

FIG. 2120.

WOOD JACKET.

FIG. 2121.

Capacity.....gallons	1	2	3	5	10
Price, Galvanized, with Spout.....per dozen	2.20	3.75	5.00	5.60	.....
Price, Galvanized, with Faucet.....per dozen	.....	.....	6.00	6.60	12.50
Price, Wood Jacket.....each	.40	.55	.70	.85	1.35

SEAMLESS STEEL.

FIG. 2122.

FUNNELS.

TIN.

FIG. 2123.

GALVANIZED.

FIG. 2124.

MEASURE.

FIG. 2125.

Seamless Steel Oil Cans.

Price, 2 Quart.....per dozen	7.50

Funnels, Tin and Galvanized.

Capacity.....quarts	1	2	4	8
Price, Tin.....per dozen	.44	.65	.85	.....
Price, Galvanized.....per dozen	.....	.95	2.25	3.75

Measures.

Capacity	1 Pint	1 Quart	1 Gallon	5 Gallon
Price.....per dozen	.45	.65	2.10	18.00

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THE W. M. PATTISON SUPPLY CO. 779 CLEVELAND

OIL TANKS.

JAPANNED TIN OIL TANK, WITH PUMP

FIG. 2126.

Capacity.....gallons	30	60
Price.....each	4.00	5.00

HEAVY GALVANIZED OIL TANKS.

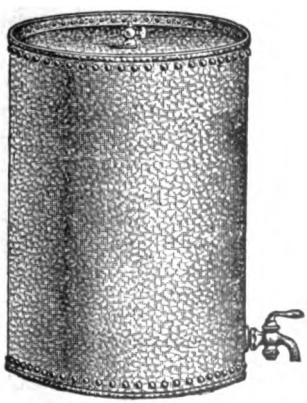

FIG. 2127.

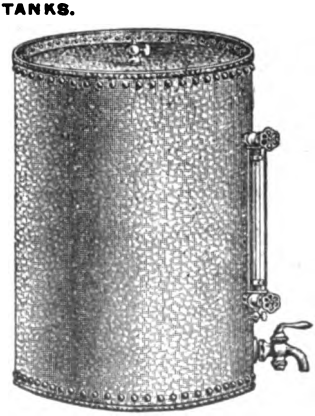

FIG. 2128.

Size..... inches	16x30	24x30	24x60
Capacity.....gallons	25	50	100
Price.....each	14.00	22.00	38.00

☞ Prices do not include bibbs and gauges.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

WILEY WOOD OIL CABINETS.

SINGLE. DOUBLE. TRIPLE.

FIG. 2129.

FIG. 2130.

FIG. 2131.

Dealer's Sizes.

49 INCHES HIGH AT THE BACK.				
Capacity, Gallons.	Price, Each.	Number of Compartments.	Number of Barrels Cabinet Is For.	Width and Length, Inches.
25	20.00	1	*	20 x 22
60	25.00	1	1	22 x 31
110	35.00	1	2	26 x 41
120	45.00	2	2	26 x 49
160	40.00	1	3	28 x 53
170	50.00	2	3	28 x 57
180	60.00	3	3	26 x 71
210	45.00	1	4	34 x 56
220	55.00	2	4	34 x 60
260	50.00	1	5	34 x 69
270	60.00	2	5	34 x 71
300	90.00	5	5	36 x 82

Factory Sizes.

39 INCHES HIGH, FRONT AND BACK.				
Capacity, Gallons.	Price, Each.	Number of Compartments.	Number of Barrels Cabinet Is For.	Width and Length, Inches.
25	20.00	1	**	22 x 22
60	25.00	1	1	26 x 28
110	35.00	1	2	26 x 47
120	45.00	2	2	26 x 52
160	40.00	1	3	26 x 66
170	50.00	2	3	28 x 64
180	60.00	3	3	26 x 76
210	45.00	1	4	30 x 73
220	55.00	2	4	30 x 77
260	50.00	1	5	30 x 89
270	60.00	2	5	30 x 94
300	90.00	5	5	30 x 106

* 41 inches high. ** 32 inches high.

NOTE.—Each Dealer's Cabinet is supplied with a Tin Pump for pumping the Oil from the barrel into the Cabinet, or four feet of Rubber Tubing for syphoning the Oil from the barrel into the Cabinet, as preferred, and full set of Measures.

NOTE.—Each Factory Cabinet is supplied with a Tin Pump for pumping the Oil from the barrel into the Cabinet, or four feet of Rubber Tubing for syphoning the Oil from the barrel into the Cabinet, as preferred.

Each compartment, as will be seen from the above list, holds ten gallons more than the number of full barrels it is made for.

To ascertain the cost of a Single Cabinet of any desired capacity add 5.00 for each 50 gallons as follows: A Cabinet holding 110 gallons costs 35.00; one holding 160 gallons, 40.00, and so on up. If a Double Cabinet is wanted, add 10.00 to the price of a Single one of the capacity desired. Each additional compartment costs 10.00, as appears in the List above.

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OILY WASTE CANS AND FILTERS.

GALVANIZED SELF-CLOSING WASTE OR REFUSE CAN.

FIG. 2132.

GALVANIZED SELF-CLOSING OILY WASTE CAN.

FIG. 2133.

Galvanized Waste or Refuse Cans.

Number				
Size.....inches	15x24	17x24	18x24	20x24
Price.....per dozen	66.00	72.00	84.00	102.00

Galvanized Oily Waste Cans.

Number	1	2	3	4	5	6	7	8
Size .....inches	11½x15	12x18	13x20	14x22	16x24	18x26	20x20	24x36
Price .....per dozen	16.00	22.00	28.00	34.00	40.00	78.00	96.00	126.00

FIG. 2134.

Cross Oil Filters.

Numbers 1 and 2 are regular, other numbers are special. All Special Filters have extra heavy brass fittings, water gauge and cover. Water gauge and cover can be furnished on the Nos. 1 and 2 Filters at 4.50 additional.

Number	1	2	3	4	5	6
Capacity per day....gallons	15 to 20	3 to 5	30 to 40	50 to 60	70 to 90	100 to 120
Price.....each	25.00	15.00	60.00	75.00	90.00	120.00
Number	7	8	9	10	11	12
Capacity per day.....gallons	120 to 150	150 to 200	200 to 250	250 to 300	300 to 400	400 to 500
Price.....each	140.00	200.00	250.00	300.00	400.00	500.00

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WASTE PRESSES AND OIL SEPARATORS.

FIG. 2135.

Economy Waste Presses, for Extracting Oil from Oily or Greasy Waste.

Size of Cylinder..inches	8x24	12x24
Price..... each	35.00	40.00

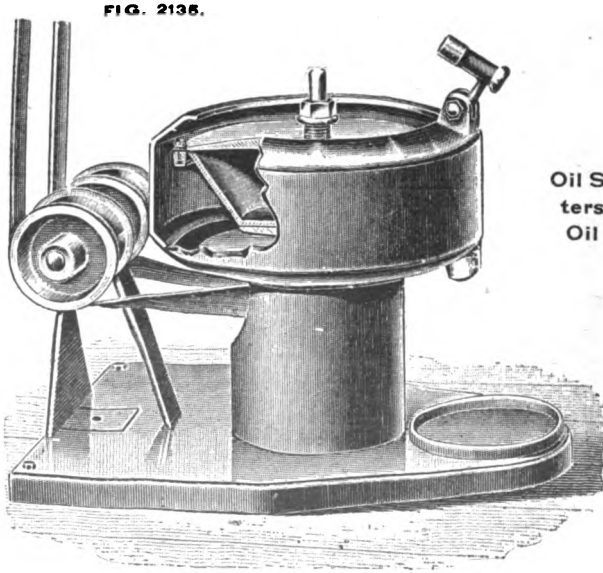

FIG. 2136.

Oil Separators and Filters, for Separating Oil from Iron Chips.

Number	1	2
Size of Pan.....inches	14 at Top 10 at Bottom 5 in Depth	14 3/16 at Top 10 at Bottom 5 in Depth
Capacity, Chips.....pounds	30	45
Price, Complete with Filter.....each	100.00	125.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 783

WIRE BOILER TUBE BRUSHES.

FLAT STEEL SPIRAL.

FIG. 2137.

ROUND STEEL SPIRAL.

FIG. 2138.

Flat and Round Steel Spiral Tube Cleaners.

Price, 1 to 6 inch	per inch	1.00

EXPANSION.

FIG. 2139.

DOUBLE SPIRAL.

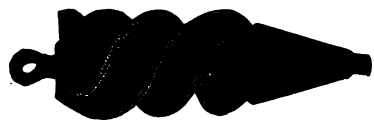
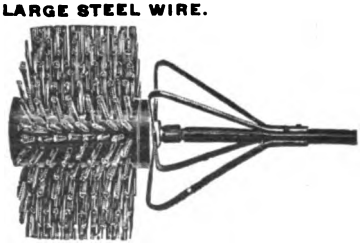


FIG. 2140.

Expansion and Double Spiral Tube Cleaners.

Price, Expansion, 1½ to 9 inch	per inch	1.00
Price, Double Spiral	per inch	1.25

LARGE STEEL WIRE.



IMPROVED; WIRE.

FIG. 2141.

FIG. 2142.

Improved and Large Steel Wire Tube Cleaners.

Price, Improved; Wire 2 to 6 inch	per inch	1.00
Price, Large, Steel Wire 8 inches and larger	per inch	1.00

☞ All Wire Tube Cleaners under 2 inch to take 2 inch price.

FIG. 2143.

FIG. 2144.

FIG. 2145.

Odd sizes and shapes of Brushes to order. Prices on application.

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BOILER TUBE CLEANERS.

BUCKEYE.

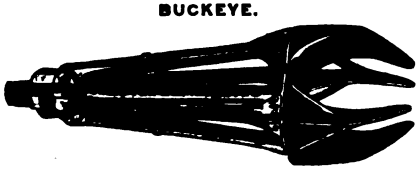

FIG. 2146.

ENGINEER'S FAVORITE.

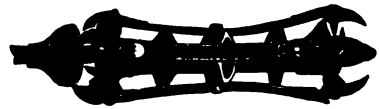

FIG. 2147.

DUPLEX.

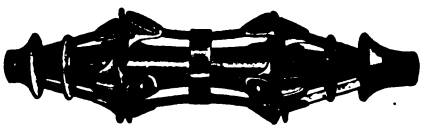

FIG. 2148.

FARIES'.

FIG. 2149.

Buckeye Boiler Tube Cleaners.

Size ..... inches	1½	2	2½	3	3½	4	4½	5	6
Price ..... each	2.00	2.00	2.50	3.00	3.50	4.00	4.50	5.00	6.00

Engineer's Favorite and Duplex Boiler Tube Cleaners.

Size ..... inches	1¾	2	2¼	2½	2¾	3	3¼	3½	3¾	4
Price ..... each	2.00	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00

Faries' Regular and Water Tube Cleaners.

Size ..... inches	2	2¼	2½	2¾	3	3¼	3½	4	4½	5	5½	6
Price ..... each	2.00	2.25	2.50	2.75	3.00	3.25	3.50	4.00	5.00	5.50	6.00	6.50
Price, Ram ..... each	.....	.....	.....	.50	.50	.50	.50	.50	.75	.75	.75	.75
Price, Cleaner with Ram ..... each	.....	.....	.....	3.25	3.50	3.75	4.00	4.50	5.75	6.25	6.75	7.25
Price, Water Tube Cleaners ..... each	.....	.....	.....	.....	.....	.....	5.00	5.65	7.20	.....	.....	.....

VACUUM.

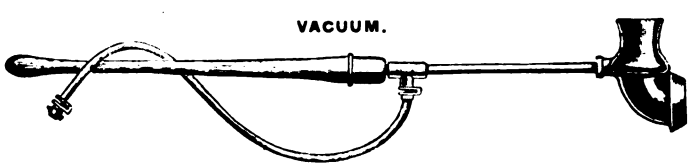

FIG. 2150.

Tube ..... inches	2	2½	3	3½	4	4½	5
Price ..... each	10.00	10.50	11.00	11.50	12.00	12.50	13.00

Handle and Fittings, 3.50.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 785

STEAM BOILER TUBE CLEANERS.

BUCKEYE.

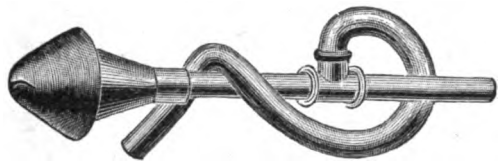

FIG. 2151.

Number	1	2	3	4
Size Tube.....inches	1½ to 2	2 to 3	3 to 4	4 to 5
Price	8.00	9.00	10.00	12.00

CORRECT.

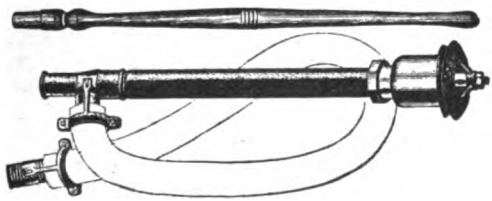

FIG. 2152.

Price, No. 1. For 2, 2¼, 2½ and 2¾ inch Tubes.....each	10.00
Price, No. 2. For 3, 3¼, 3½, 3¾ and 4 inch Tubes.....each	12.00

FOLDING RODS FOR BOILER TUBE CLEANERS.

MADE OF WHITE ASH WOOD.

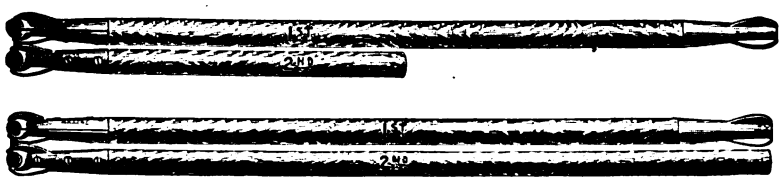

FIG. 2153.

Number	1	2	3	4	5	6	7	8
Length, First Section.....feet	6½	5½	4½	15	13	11	10	8
Length, Second Section.....feet	6½	5½	4½	6	6	6	5	5
Length, Over All.....feet	13	11	9	21	19	17	15	13
Price.....each	4.32	4.20	4.08	4.80	4.68	4.56	4.44	4.32

Number	9	10	11	12	13	14	15	
Length, First, Second and Third Sections.....feet	7	6⅓	5⅞	5	4⅛	3⅞	3	.....
Length, Over All.....feet	21	19	17	15	13	11	9	.....
Price.....each	6.30	6.18	6.06	5.94	5.82	5.70	5.58	.....

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THE W. M. PATTISON SUPPLY CO. 786 CLEVELAND

TURBINE BOILER TUBE CLEANERS, OPERATED BY WATER POWER.

For Water Tube Boilers.

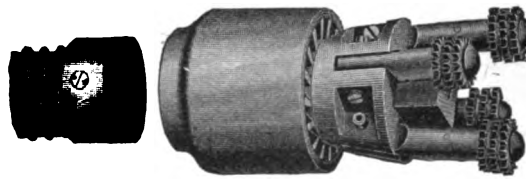

FIG. 2154.

Number	1	2	6	7	8
Size of Tubes .....inches	4	3½	Curved	3½	4

Numbers 1 and 2 have malleable iron case and waterwheel, other parts are of steel.

Number 6 is adapted for all sizes of curved tubes.

Numbers 7 and 8 are made extra strong and from the best steel and phosphor bronze.

Cutter Wheels are furnished with cleaners best adapted for requirements.

MECHANICAL BOILER TUBE CLEANERS.

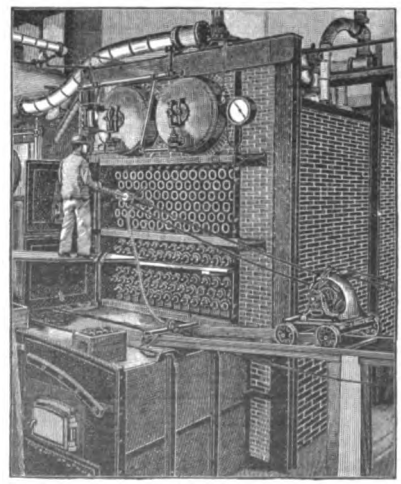

FIG. 2155.

The above illustration shows a mechanical cleaner operated by an electric motor. These cleaners are valuable for large plants where cleaning is almost in constant operation or where the scale is so thick and hard it cannot be removed by hand or turbine cleaner.

Prices on application upon receipt of inquiry giving requirements, etc.

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THE W. M. PATTISON SUPPLY CO. 787 CLEVELAND

STEAM BLOWERS.

FURNACE BLOWER AND VENTILATOR.

FIG. 2156.

STEAM JET AIR BLOWER.

FIG. 2157.

Furnace Blowers and Ventilators.

Size.	Price, Each.	Capacity, Per Hour, Cubic Feet.	Steam Pipe, Inches.	Inlet, Inches.	Discharge, Inches.
00	25.00	8000	$\frac{3}{8}$	4	3
0	30.00	16000	$\frac{1}{2}$	5	4
1	40.00	30000	$\frac{1}{2}$	8	6
$1\frac{1}{2}$	50.00	45000	$\frac{3}{4}$	9	7
2	60.00	60000	$\frac{3}{4}$	11	8
$2\frac{1}{2}$	70.00	90000	$\frac{3}{4}$	12	9
3	80.00	120000	1	14	10
$3\frac{1}{2}$	90.00	180000	1	16	12
4	100.00	240000	$1\frac{1}{4}$	18	14
6	200.00	500000	$1\frac{1}{2}$	24	18
8	350.00	1000000	2	32	24
10	600.00	2000000	$2\frac{1}{2}$	42	32

Steam Jet Air Blowers.

Number.	Price, Each.	Steam Pipe, Inches.	Suction Pipe, Inches.	Discharge Pipe, Inches.
5	13.00	$\frac{3}{8}$	2	$1\frac{1}{2}$
6	16.00	$\frac{1}{2}$	$2\frac{1}{2}$	2
7	20.00	$\frac{1}{2}$	3	$2\frac{1}{2}$

Fig 2156 shows a Furnace Blower and Ventilator which meets all requirements where a low counter pressure or refraction is desired. The volumes given above are under the supposition of 60 pounds steam and an intermediate position of Spindle and working against a counter pressure of from $\frac{1}{2}$ to 2 inches of water.

Fig. 2157 shows a Steam Jet Air Blower especially adapted for creating circulation, draft under boilers, prevention of smoke, etc.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

BOILER TUBE EXPANDERS.

CLASS A.

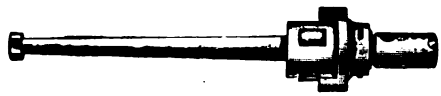

FIG. 2158.

CLASS C.

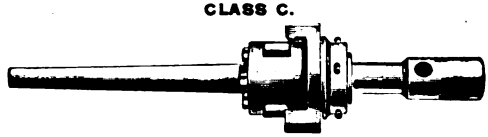

FIG. 2159.

Diameter.....inches	1	1¼	1½	1¾	1⅞	2	2¼	2½	2¾
Price.....each	10.00	10.00	10.00	10.00	10.00	10.00	12.00	14.00	16.00

Diameter.....inches	3	3¼	3½	3¾	4	4¼	4½	5	6
Price.....each	18.00	20.00	23.00	25.00	30.00	35.00	40.00	50.00	60.00

Class C is made for work that requires a detachable mandrel.

CLASS H.

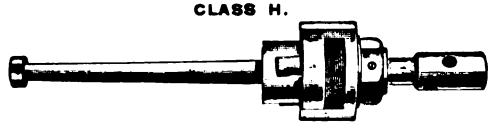

FIG. 2160.

Diameter.....inches	1	1¼	1½	1¾	1⅞	2	2¼	2½	2¾
Price.....each	12.00	12.00	12.00	14.00	15.00	16.00	18.00	20.00	23.00

Diameter.....inches	3	3¼	3½	3¾	4	4¼	4½	5	6
Price.....each	26.00	29.00	32.00	35.00	38.00	41.00	44.00	50.00	60.00

Class H is a Self Feeding Roller Tube Expander.

PROSSER SPRING.

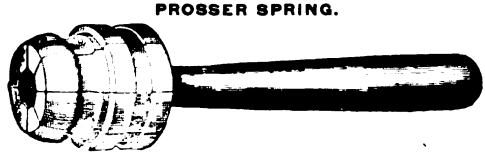

FIG. 2161.

Size...inches	1	1¼	1½	1¾	2	2¼	2½	2¾	3	3¼	3½	4
Price.....each	8.00	8.00	9.00	11.00	12.00	13.00	15.00	18.00	22.00	26.00	30.00	33.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 789

BOILER TUBE PLUGS.

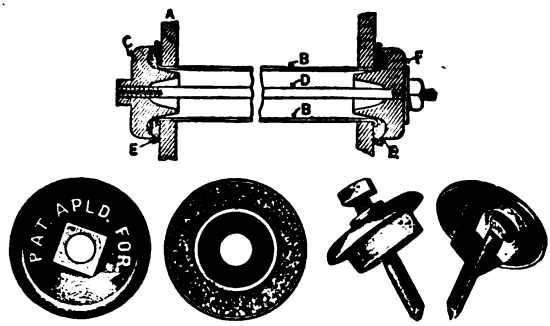

FIG. 2162.

Size ..... inches	1	1¼	1½	1¾	2	2¼	2½	2¾
Price, With Packing.....per pair	1.00	1.00	1.00	1.00	1.00	1.15	1.30	1.45

Size ..... inches	3	3¼	3½	3¾	4	4½	5	6
Price, With Packing .....per pair	1.60	1.75	2.00	2.25	2.50	2.75	3.00	3.25

The above appliance consists of two flanged plugs, each with an asbestos gasket packing as shown in Fig. 2162. These gaskets are saturated in linseed oil to prevent the action of the water on them.

A ⅝ inch rod of a suitable length constitutes the device complete. Fig. 2162 shows the plug properly adjusted, A represents the tube head; B, the wall of the tube; C, plug adjusted; D, connecting rod; E, asbestos packing.

TUBE STOPPER.

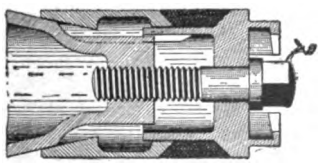

FIG. 2163.

FERRULES FOR BOILER TUBES.

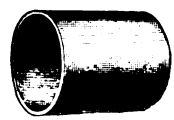

FIG. 2164.

Tube Stoppers.

Price, per set of Two Stoppers, External Tube Diameter.....per inch	1.50

This stopper cannot be forced out or leak under pressure, it can be applied without drawing fires. When ordering give external diameter of tube.

Ferrules for Boiler Tubes.

Diameter of Tube.....inches	1¼	1½	1¾	2	2¼	2½	2¾
Price..... each	.20	.20	.20	.20	.25	.30	.35

Diameter of Tube.....inches	3	3¼	3½	4	4½	5	6
Price..... each	.40	.45	.50	.60	.80	.80	1.10

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 790

BOILER TUBE CUTTERS.

For Removing Old Boiler Tubes.

LIGHTNING.

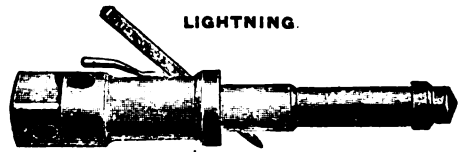

FIG. 2165.

Number	1	2	3	4	5	6
Size of Tube ....inches	1½	1¾	2	2¼	2½	2¾
Price ....each	10.00	10.00	12.00	12.00	14.00	14.00
Price, Smoke Box Extension Extra....each	1.75	1.75	1.75	1.75	1.75	2.00

Number	7	8	9	10	11	.....
Size of Tube ....inches	3	3¼	3½	3¾	4	.....
Price ....each	16.00	16.00	18.00	18.00	20.00	.....
Price, Smoke Box Extension Extra....each	2.00	2.00	2.25	2.25	2.50	.....

FOR CUTTING TUBES TO LENGTH AFTER EXPANDING THEM IN THE BOILER AT ONE END.

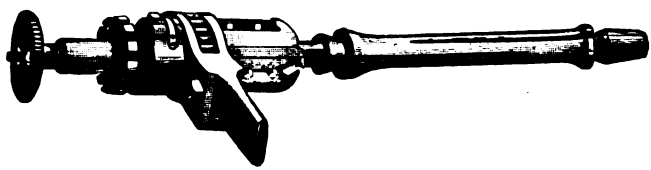

FIG. 2166.

Number	1	2
Size of Tube ....inches	2, 2¼, 2½, 3, 3½, 4, 4½	1¾, 2, 2¼
Price ....each	70.00	40.00

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THE W. M. PATTISON SUPPLY CO. 791 CLEVELAND

RIVETS.

ANY STYLE HEAD.

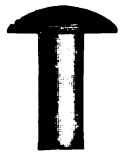

FIG. 2167.

FIG. 2168.

PRICE PER POUND IN 5 AND 10 POUND BOXES.

Diameter.	Length, Inches.															
	1 Inch and Longer	7/8	3/4	5/8 and 1/2	15/32	7/16	13/32	3/8	11/32	5/16	9/32	1/4	7/32	3/16	5/32	1/8	3/32
7/16	19	.19½	.19½	.20	.....	.....	....	.....	.....	..	.....	.....	.....	.....	.....	.....	.....
3/8	19	.19½	.19½	.20	.21	....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	. ..
11/32	19½	.20	.20	.20½	.21	.21	.....	.....	.....	....	.....	.....	.....	.....	... .	.....	.....
5/16	19½	.20	.20	.20½	.21	.22	.22	.22	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	20	.20½	.20½	.21	.22	.23	.23	.23	.23	.....	.....	....	.....	.....	.....	.....	.....
2	20	.20½	.20½	.21	.22	.23	.23	.23	.23	.24	..	.....	....	.....	.....	.....	.....
3	20	.20½	.20½	.21	.22	.23	.23	.23	.23	.24	.24	.24	.....	.....	.....	.....	.....
1/4	20	.20½	.20½	.21	.22	.23	.23	.23	.23	.24	.24	.24	.25	.25	.. ..	.. ..	.....
4	21	.21½	.21½	.22	.23	.23	.24	.24	.24	.24	.24	.24	.25	.25	.26	..	.....
5	21	.21½	.21½	.22	.23	.24	.24	.24	.24	.25	.26	.26	.27	.27	.28	.28	.29
6	21	.21½	.21½	.22	.23	.24	.24	.25	.25	.26	.26	.27	.28	.29	.29	.29	.30
3/16	21	.21½	.21½	.22	.23	.24	.24	.25	.25	.26	.26	.27	.28	.29	.30	.31	.32
7	21	.21½	.22	.23	.24	.24	.24	.25	.25	.26	.26	.27	.28	.29	.30	.31	.32
8	22	.22½	.22½	.23	.24	.25	.25	.26	.26	.27	.27	.28	.29	.30	.31	.32	.33
9	23	.23½	.23½	.24	.25	.26	.26	.27	.27	.29	.29	.29	.30	.31	.33	.35	.36
10	24	.24½	.24½	.25	.26	.27	.28	.29	.31	.33	.34	.34	.36	.39	.41	.43	.44
11	25	.25½	.25½	.26	.28	.30	.32	.33	.34	.36	.37	.37	.39	.43	.46	.48	.51
12	26	.26½	.26½	.27	.30	.32	.34	.35	.36	.38	.40	.41	.42	.47	.51	.56	.61
13	30	.30½	.30½	.31	.33	.36	.39	.40	.41	.43	.45	.46	.47	.51	.56	.61	.66
14	32	.32½	.32½	.33	.36	.41	.44	.46	.51	.56	.58	.61	.64	.64	.66	.69	.71

Rivets packed in 25 and 50 pound boxes deduct 2 cents per pound from list.

Rivets packed in 100 and 200 pound kegs deduct 4 cents per pound from list.

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THE W. M. PATTISON SUPPLY CO. 792 CLEVELAND

TINNERS' RIVETS.

FLAT HEAD.

FIG. 2169.

FIG. 2170.

PACKAGES OF 1000 EACH.			SIZE.	5 AND 10 POUND BOXES.
PRICE PER PACKAGE.				PRICE PER POUND.
Black.	Tinned.	Tin Plated.		Black.
.20	28	24	8 oz.	.42
.22	31	27	10 oz.	.38
.24	35	30	12 oz.	.35
.26	39	33	14 oz.	.33
.27	42	35	1 lb.	.30
.29	48	39	1¼ lb.	.27
.33	55	45	1½ lb.	.26
.37	64	51	1¾ lb.	.25
.42	72	58	2 lb.	.24
.55	83	75	2½ lb.	.24
.60	1.05	.84	3 lb.	.23
.70	1.22	.98	3½ lb.	.23
.76	1.36	1.08	4 lb.	.22
.90	1.65	1.30	5 lb.	.22
1.08	1.98	1.56	6 lb.	.21
1.26	2.31	1.82	7 lb.	.21
1.44	2.64	2.08	8 lb.	.21
1.53	2.88	2.25	9 lb.	.21
1.75	3.25	2.55	10 lb.	.20
1.96	3.76	2.92	12 lb.	.19½
2.31	4.41	3.43	14 lb.	.19½
2.64	5.04	3.92	16 lb.	.19½

NET EXTRAS.

For Tin or Copper Plated, add 1 cent per pound to net price. For Metallic Tinning add 2½ cents per pound to net price.

LIST REBATES.

For 25 and 50 pound boxes deduct 2 cents and for 100 and 200 pound kegs deduct 4 cents per pound from list.

Black and Tinned Swedes Iron Burrs, Per Pound.

Size.	Price, Black.	Price, Tinned.	Size.	Price, Black.	Price, Tinned.	Size.	Price, Black.	Price, Tinned.	Size.	Price, Black.	Price, Tinned.
3/16	.23	.33	3	.23	.33	1 3/16	.28	.38	11	.36	.46
1/4	.23	.33	4	.23	.33	7	.30	.40	12	.42	.52
5/16	.23	.33	4	.24	.34	8	.33	.43	13	.42	.53
1	.23	.33	5	.25	.35	9	.34	.44	14	.45	.55
2	.23	.33	6	.28	.38	10	.35	.45	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. 791 CLEVELAND

RIVETS.

Any Style Head.

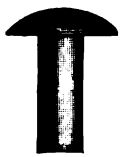

FIG. 2167.

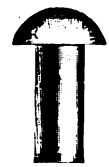

FIG. 2168.

Diameter,	PRICE, PER POUND, LENGTH, INCHES.													
	½ and longer.	15/32	7/16	13/32	3/8	11/32	5/16	9/32	1/4	7/32	3/16	5/32	1/8	3/32
7/16	.15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3/8	.15	.16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11/32	.15	.16	.16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5/16	.15½	.16½	.16½	.16½	.16½	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	.15½	.16½	.16½	.16½	.16½	.16½	.....	.....	.....	.....	.....	.....	.....	.....
2	.15½	.16½	.16½	.16½	.16½	.17	.17	.....	.....	.....	.....	.....	.....	.....
9/32	.15½	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	.15½	.16	.17	.17	.17	.17	.18	.18	.18	.....	.....	.....	.....	.....
1/4	.15½	.16	.17	.17	.17	.17	.18	.18	.18	.19	.19	.....	.....	.....
4	.15½	.17	.17	.18	.18	.18	.18	.18	.18	.19	.19	.20	.....	.....
5	.16	.17	.18	.18	.18	.18	.19	.20	.20	.21	.21	.22	.22	.23
7/32	.16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	.16	.17	.18	.18	.19	.19	.20	.20	.21	.22	.23	.23	.23	.24
3/16	.16	.17	.18	.18	.19	.19	.20	.20	.21	.22	.23	.24	.25	.26
7	.16½	.18	.18	.18	.19	.19	.20	.20	.21	.22	.23	.24	.25	.26
8	.17	.18	.19	.19	.20	.20	.21	.21	.22	.23	.24	.25	.26	.27
5/32	.17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	.18	.19	.20	.20	.21	.21	.23	.23	.23	.24	.25	.27	.29	.30
10	.19	.20	.21	.22	.23	.25	.27	.28	.28	.30	.33	.35	.37	.38
1/8	.19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	.20	.22	.24	.26	.27	.28	.30	.31	.31	.33	.37	.40	.42	.45
12	.21	.24	.26	.28	.29	.30	.32	.34	.35	.36	.41	.45	.50	.55
13	.25	.27	.30	.33	.34	.35	.37	.39	.40	.41	.45	.50	.55	.60
3/32	.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	.27	.30	.35	.38	.40	.45	.50	.52	.55	.58	.58	.60	.63	.65

Rivets made from wire smaller than No. 14, all lengths, 70c. per pound.

Extras—Shoulder Rivets, 2c. per pound added to list.

Goods packed in 25 pound boxes, 20c. per 100 pounds, net; in 10 pound and 5 pound packages, 30c. per 100 pounds, net; in 1 pound packages, 50c. per 100 pounds, net.

Any of the above sizes tinned, 2½c. per pound net extra.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 792

TINNER'S RIVETS.

Flat Head.

FIG. 2169.

FIG. 2170.

IN BULK.			SIZE.	IN PACKAGES OF 1000 EACH		
PRICE PER POUND.				PRICE PER PACKAGE.		
Black.	Tin Plated.	Tinned.		Black.	Tin Plated.	Tinned.
.38	.42	.48	8 oz.	.20	.22	.25
.34	.38	.44	10 oz.	.22	.25	.28
.31	.35	.41	12 oz.	.24	.27	.31
.29	.33	.39	14 oz.	.26	.30	.35
.26	.30	.36	1 lb.	.27	.31	.37
.23	.27	.33	1¼ lb.	.29	.34	.42
.22	.26	.32	1½ lb.	.33	.39	.48
.21	.25	.31	1¾ lb.	.37	.44	.55
.20	.24	.30	2 lb.	.42	.50	.62
.20	.24	.30	2¼ lb.	.55	.65	.80
.19	.23	.29	3 lb.	.60	.72	.90
.19	.23	.29	3½ lb.	.70	.84	1.05
.18	.22	.28	4 lb.	.76	.92	1.16
.18	.22	.28	5 lb.	.90	1.10	1.40
.17	.21	.27	6 lb.	1.08	1.32	1.68
.17	.21	.27	7 lb.	1.26	1.54	1.97
.17	.21	.27	8 lb.	1.44	1.76	2.24
.17	.21	.27	9 lb.	1.53	1.89	2.43
.16	.20	.26	10 lb.	1.75	2.15	2.75
.15½	.20	.26	12 lb.	1.98	2.34	3.18
.15½	.20	.26	14 lb.	2.31	2.87	3.71
.15½	.20	.26	16 lb.	2.64	3.28	4.24

Oval or Countersunk Heads or Extra lengths, 10 cents per 1000 additional to the above list.

Black and Tinned Swedes Iron Burrs, Per Pound.

Size.	Price, Black.	Price, Tinned.	Size.	Price, Black.	Price, Tinned.	Size.	Price, Black.	Price, Tinned.	Size.	Price, Black.	Price, Tinned.
3/16	.23	.33	3	23	33	9/16	28	38	11	36	46
1/4	.23	.33	4	23	33	7	30	40	12	42	52
5/16	.23	.33	4	24	34	8	33	43	13	42	53
1	.23	.33	5	25	35	9	34	44	14	45	55
2	.23	.33	6	28	38	10	35	45	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. 793 CLEVELAND

RIVETS.

Coopers' Rivets, Heavy, Medium and Light.

Size.	APPROXIMATE DIMENSIONS.		In 5 and 10 Pound Boxes.	Size.	APPROXIMATE DIMENSIONS.		In 5 and 10 Pound Boxes.
	Length.	Diameter.			Length.	Diameter.	
1d	1 3/4	No. 4	.21	4d	1 7/8	No 1	.20
2d	7/8	No. 3	.20½	5d	1 9/32	No. 0	.20
3d	1 1/16	No. 2	.20	6d	1 1/4	No. 00	.20

In 25 and 50 pound boxes, deduct 2 cents per pound from list.
In 100 and 200 pound kegs, deduct 4 cents per pound from list.

Hame Rivets.

Size.	Price, Per Pound in 1, 5 and 10 Pound Boxes.				
	.....Length	1	7/8	3/4	5/8
No 6	.....Per pound	.21	.21½	.21½	.22
No. 5/16	.....Per pound	.21	.21½	.21½	.22
No 7	.....Per pound	.21	.21½	.22	.23
No 8	.....Per pound	.21	.21½	.22	.23

In 25 and 50 pound boxes, deduct 2 cents per pound from list.
In 100 and 200 pound kegs, deduct 4 cents per pound from list.

Coppered or Tinned Bolt Rivets and Burrs.

Diameter.....	7	8	9	10	11	12	13	14
Uniform lengths in 1 pound boxes...per pound	.35	.36	.37	.39	.41	.45	.48	.51
Uniform lengths in ½ pound boxes...per pound	.39	.40	.41	.43	.45	.49	.52	.55
Uniform lengths in ¼ pound boxes...per pound	.43	.44	.45	.47	.49	.53	.56	.59
Assorted lengths 3/8 to 3/4 in 1 pound boxes.. per pound	.39	.40	.41	.43	.45	.49	.52	.55

CONE HEAD.

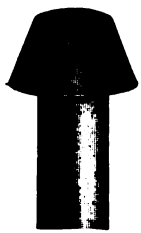

FIG. 2171.

COUNTERSUNK HEAD.

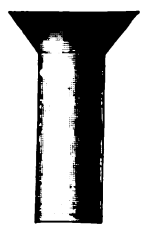

FIG. 2172.

BUTTON HEAD.

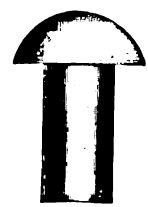

FIG. 2173.

Boiler Rivets, Tank and Structural Rivets.

Prices on application.

Cancel (793) and insert this.

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THE W. M. PATTISON SUPPLY CO. 793 CLEVELAND

RIVETS.

Coopers' Rivets, Heavy, Medium and Light.

Size	1 D	2 D	3 and 4 D	5 D	6 D
Price.....per pound	.16½	.16	.15½	.15½	.15

Pointed Hame Rivets, Any Length.

Diameter	6	5/16	7	8
Price.....per pound	.16	.16	.16½	.17

Coppered or Tinned Belt Rivets and Burrs.

Diameter	7	8	9	10	11	12	13	14
Price, Uniform Lengths: 1 pound boxes.....per pound	.31	.32	.33	.34	.35	.42	.43	.45
Price, Uniform Lengths: ½ pound boxes.....per pound	.35	.35	.37	.38	.39	.46	.47	.49
Price, ⅜ to ¾ in. long: 1 pound boxes.....per pound	.35	.36	.37	.38	.39	.46	.47	.49
Price, ⅜ to ¾ in. long: ½ pound boxes.....per pound	.37	.38	.39	.40	.41	.48	.49	.51

CONE HEAD.

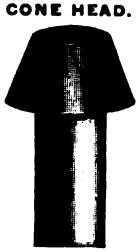

FIG. 2171.

COUNTERSUNK HEAD.

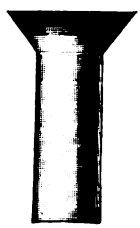

FIG. 2172.

BUTTON HEAD.

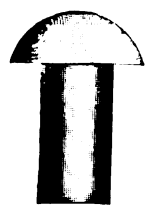

FIG. 2173.

Boiler Rivets.

Tank and Structural Rivets.

Prices on Application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

IRON AND STEEL WOOD SCREWS.

Flat, Round and Oval Heads.

FIG. 2174.

FIG. 2175.

Number.	PRICE PER GROSS.												
	0	1	2	3	4	5	6	7	8	9	10	11	12
Size, Inches													
¼	.72	.72	.72	.72	.72	.....	.....	.....	.....	.....	.....	.....	.....
⅜	.72	.72	.72	.72	.72	.75	.78	.82	.88	.94	.....	.....	.....
½	.....	.72	.72	.72	.75	.78	.80	.84	.90	.96	1.05	1.10	1.20
⅝	.....	.72	.72	.72	.75	.78	.82	.86	.92	.98	1.07	1.12	1.20
¾	.....	.....	.72	.75	.78	.82	.85	.90	.95	1.00	1.10	1.15	1.25
⅞	.....	.....	.74	.78	.82	.85	.90	.94	1.00	1.05	1.15	1.25	1.35
1	.....	.....	.....	.80	.84	.87	.92	.98	1.05	1.10	1.20	1.30	1.40
1¼	.....	.....	.....	.88	.92	.98	1.05	1.10	1.15	1.20	1.30	1.40	1.55
1½	.....	.....	.....	.98	1.05	1.10	1.15	1.20	1.30	1.35	1.40	1.50	1.65
1¾	.....	.....	.....	.....	.....	1.30	1.35	1.45	1.50	1.55	1.60	1.70	1.80
2	.....	.....	.....	.....	.....	1.45	1.50	1.55	1.60	1.65	1.75	1.85	2.00
2¼	.....	.....	.....	.....	.....	1.55	1.60	1.65	1.75	1.85	1.95	2.05	2.20
2½	.....	.....	.....	.....	.....	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
2¾	.....	.....	.....	.....	.....	.....	2.40	2.60	2.70	2.80	2.90	3.00	3.10
3	.....	.....	.....	.....	.....	.....	2.95	3.00	3.05	3.10	3.15	3.20	3.30
3½	.....	.....	.....	.....	.....	.....	.....	.....	3.90	4.00	4.10	4.20	4.30
4	.....	.....	.....	.....	.....	.....	.....	.....	4.90	5.10	5.20	5.30	5.40
4½	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7.00
5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8.10
6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10.00

Number.	13	14	15	16	17	18	20	22	24	26	28	30
Size, Inches												
⅜	1.25	1.30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
½	1.35	1.50	1.65	1.80	.....	.....	.....	.....	.....	.....	.....	.....
⅝	1.45	1.55	1.75	2.00	.....	.....	.....	.....	.....	.....	.....	.....
¾	1.60	1.70	2.00	2.50	2.70	2.80	3.50	.....	.....	.....	.....	.....
⅞	1.70	1.90	2.15	2.50	2.75	3.30	4.00	4.80	5.40	.....	.....	.....
1	1.80	2.00	2.35	2.80	3.20	3.80	4.30	5.10	5.90	.....	.....	.....
1¼	2.00	2.25	2.60	2.90	3.50	4.00	4.50	5.20	6.00	.....	.....	.....
1½	2.20	2.45	2.75	3.10	3.70	4.20	4.80	5.50	6.40	.....	.....	.....
1¾	2.35	2.65	3.10	3.50	3.85	4.55	5.30	6.10	6.90	.....	.....	.....
2	2.70	2.90	3.30	3.65	4.20	4.70	5.80	6.70	7.50	.....	.....	.....
2¼	3.20	3.30	3.60	3.90	4.50	5.00	6.10	7.20	8.50	.....	.....	.....
2½	3.40	3.50	3.80	4.20	4.80	5.50	6.50	7.50	8.70	10.50	.....	.....
2¾	4.40	4.50	4.75	4.95	5.40	6.15	7.30	8.70	10.20	12.00	.....	.....
3	5.60	5.90	6.20	6.50	7.00	7.60	8.60	9.70	11.20	14.00	16.00	18.50
3½	7.20	7.60	7.85	8.15	8.60	9.15	9.85	11.20	13.50	16.00	18.50	21.50
4	8.30	8.60	9.10	9.70	10.10	11.00	11.50	13.00	15.00	18.00	21.00	24.00
5	10.30	11.00	11.60	12.40	13.00	14.50	16.00	18.00	20.00	23.00	27.00	30.50
6												

Japanned, Tinned and Plated Screws not Burnished, same list as above.

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THE W. M. PATTISON SUPPLY CO. 795 CLEVELAND

BRASS AND BRONZE WOOD SCREWS.

Flat, Round, and Oval Heads.

FIG. 2176.

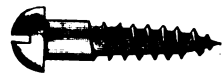

FIG. 2177.

Number.	PRICE, PER GROSS.											
	0	1	2	3	4	5	6	7	8	9	10	11
Size, Inches												
¼	.84	.84	.88	.92	.97	1.04	.....	.....	.....	.....	....	.....
⅜	.84	.87	.92	.97	1.04	1.12	1.20	1.35	1.50	.....	.....	.....
½	.....	.92	.96	1.02	1.08	1.20	1.30	1.45	1.65	1.90	2.15	.....
⅝	.....	.96	1.00	1.08	1.15	1.30	1.40	1.60	1.85	2.10	2.40	2.65
¾	.....	.....	1.12	1.18	1.25	1.40	1.55	1.75	2.00	2.30	2.65	3.00
⅞	.....	.....	1.40	1.50	1.55	1.60	1.65	1.90	2.20	2.50	2.90	3.35
1	.....	.....	.....	1.65	1.70	1.75	1.80	2.10	2.45	2.80	3.15	3.65
1¼	.....	.....	....	2.10	2.20	2.25	2.35	2.45	2.85	3.20	3.50	4.10
1½	.....	.....	.....	.....	2.95	3.05	3.10	3.20	3.30	3.65	4.25	4.65
1¾	.....	.....	.....	.....	.....	.....	3.95	4.00	4.10	4.20	4.70	5.35
2	.....	.....	.....	.....	.....	.....	5.15	5.20	5.25	5.30	5.40	6.15
2¼	.....	.....	.....	.....	.....	.....	.....	.....	6.85	6.95	7.05	7.25
2½	.....	.....	.....	.....	.....	.....	.....	.....	.....	9.40	9.50	9.60
2¾	.....	.....	.....	.....	.....	.....	.....	.....	.....	11.50	11.65	11.80
3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13.70	13.85

Number	12	13	14	15	16	17	18	20	22	24	26
Size, Inches											
¼	3.00	3.35	3.70	4.10	4.55	.....	.....	.....	.....	.....	.....
⅜	3.35	3.70	4.10	4.55	5.05	.....	.....	.....	.....	.....	.....
½	3.70	4.10	4.55	5.05	5.60	.....	.....	.....	.....	.....	.....
1	4.10	4.55	5.05	5.60	6.65	.....	7.40	.....	.....	.....	.....
1¼	4.65	5.35	5.85	6.55	7.20	7.85	9.35	10.45	.....	.....	.....
1½	5.35	5.95	6.65	7.60	8.35	9.15	10.85	12.65	14.50	.....	.....
1¾	6.05	6.70	7.35	8.65	9.50	10.45	12.40	14.50	16.85	18.90	.....
2	6.85	7.55	8.45	9.75	10.70	11.70	13.90	16.30	18.90	21.00	.....
2¼	7.90	8.80	9.80	10.75	11.90	13.00	15.40	18.00	20.95	23.30	.....
2½	9.70	9.85	10.75	11.85	13.00	14.30	16.95	19.85	23.00	25.50	.....
2¾	11.95	12.10	12.25	13.00	14.20	15.65	18.40	21.60	25.00	28.00	....
3	14.00	14.10	14.30	14.60	15.40	16.80	19.95	23.40	27.10	31.15	35.85

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

HOT PRESSED AND FORGED, SQUARE AND HEXAGON NUTS.

SQUARE.

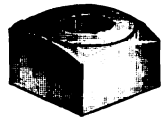

FIG. 2178.

U. S. Standard.

HEXAGON.

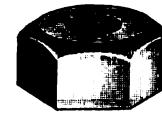

FIG. 2179.

Width Inches.	Thickness, Inches.	Hole, Inches.	Size of Bolt, Inches.	SQUARE. Price in 200 Pound Kegs, Cents, Per Pound.		HEXAGON. Price in 200 Pound Kegs, Cents, Per Pound.		SQUARE. Average Number in One Keg.		HEXAGON. Average Number in One Keg.	
				Blank.	Tapped	Blank.	Tapped	Blank.	Tapped	Blank.	Tapped
1/2	1/4	3/16	1/4	13.	15.	20.	22.5	13800	14760	17400	18600
19/32	5/16	1/4	5/16	12.	13.5	18.	20.	7400	7915	9200	9760
11/16	3/8	13/64	3/8	10.5	11.6	14.	15.6	5000	5320	6000	6400
25/32	7/16	11/32	7/16	10.	10.9	13.	14.3	3200	3400	4000	4250
7/8	1/2	13/32	1/2	9.	9.7	11.2	12.2	2400	2540	3000	3200
31/32	9/16	29/64	9/16	9.	9.6	11.2	12.1	1600	1690	2128	2275
1 1/16	5/8	33/64	5/8	8.7	9.2	10.5	11.2	1360	1440	1540	1630
1 1/4	3/4	5/8	3/4	8.5	8.9	10.	10.6	832	880	998	1050
1 7/16	7/8	47/64	7/8	8.4	8.8	9.9	10.5	544	578	628	665
1 5/8	1	27/32	1	8.2	8.6	9.7	10.3	376	397	436	460
1 13/16	1 1/8	15/16	1 1/8	8.2	8.6	9.7	10.3	268	284	288	305
2	1 1/4	1 1/16	1 1/4	8.4	8.8	9.9	10.5	206	220	250	260
2 1/16	1 3/8	1 5/32	1 3/8	8.5	9.	10.	10.7	146	157	182	190
2 3/8	1 1/2	1 9/32	1 1/2	8.8	9.4	10.3	11.1	120	127	144	150
2 9/16	1 5/8	1 13/32	1 5/8	9.	9.7	10.5	11.4	95	100	116	120
2 3/4	1 3/4	1 1/2	1 3/4	9.3	10.	10.8	11.7	74	77	95	100
2 15/16	1 7/8	1 5/8	1 7/8	9.5	10.3	11.	12.	64	67	80	84
3 1/8	2	1 23/32	2	9.7	10.6	11.2	12.3	53	56	62	65
3 5/16	2 1/8	1 13/16	2 1/8	10.	11.	11.7	12.9	43	45	52	54
3 1/2	2 1/4	1 15/16	2 1/4	10.	11.1	11.7	13.	36	37	44	46
3 11/16	2 3/8	2 1/16	2 3/8	10.3	11.5	12.2	13.6	28	29	35	36
3 7/8	2 1/2	2 1 1/4	2 1/2	10.5	11.8	12.4	13.9	24	25	32	33
4 1/4	2 3/4	2 2 7/4	2 3/4	11.	12.4	13.	14.6	21	22	27	27
4 5/8	3	2 5/8	3	11.5	13.	13.5	15.2	16	17	18	18

For less than keg lots (200 pounds) of a size, add 20 cents per cwt. for 100 pounds or over. 50 cents per cwt. for less than 100 pounds.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 797

COLD PUNCHED SQUARE AND HEXAGON NUTS.

SQUARE.

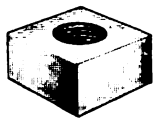

FIG. 2160.

U. S. Standard.

HEXAGON.

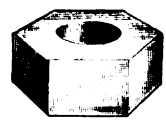

FIG. 2161.

Width Inches.	Thickness, Inches.	Hole, Inches.	Size of Bolt, Inches.	SQUARE. Price in 200 Pound Kegs, Cents, Per Pound.		HEXAGON. Price in 200 Pound Kegs, Cents, Per Pound.		SQUARE. Average Number in One Keg.		HEXAGON. Average Number in One Keg.	
				Blank.	Tapped	Blank.	Tapped	Blank.	Tapped	Blank.	Tapped
1/2	1/4	3/16	1/4	13.8	15.8	21.	23.5	12800	13900	16400	17550
17/32	5/16	1/4	5/16	12.8	14.3	19.	21.	7500	8000	9200	9840
11/16	3/8	17/64	3/8	11.	12.1	14.7	16.3	4800	5100	5300	5650
23/32	7/16	11/32	7/16	10.5	11.4	13.7	15.	3104	3290	3700	3920
7/8	1/2	13/32	1/2	9.3	10.	11.5	12.5	2200	2330	2700	2860
31/32	9/16	29/64	9/16	9.3	9.9	11.5	12.4	1600	1690	1940	2050
1 1/16	5/8	33/64	5/8	8.9	9.4	10.7	11.4	1200	1270	1500	1590
1 1/4	3/4	5/8	3/4	8.6	9.	10.2	10.8	760	800	920	970
1 7/16	7/8	47/64	7/8	8.6	9.	10.2	10.8	496	520	600	630
1 5/8	1	27/32	1	8.4	8.8	10.	10.6	336	350	416	440
1 13/16	1 1/8	1 5/16	1 1/8	8.4	8.8	10.	10.6	244	260	304	320
2	1 1/4	1 1/16	1 1/4	8.8	9.2	10.5	11.1	187	196	224	225
2 3/16	1 3/8	1 5/32	1 3/8	8.8	9.3	10.5	11.2	149	156	168	180
2 3/8	1 1/2	1 9/32	1 1/2	9.6	10.2	11.3	12.1	117	122	133	140
2 9/16	1 5/8	1 13/32	1 5/8	9.6	10.3	11.3	12.2	86	90	110	120
2 3/4	1 3/4	1 1/2	1 3/4	10.2	10.9	12.1	13.	74	77	83	88
2 13/16	1 7/8	1 5/8	1 7/8	10.2	11.	12.1	13.1	55	57	72	77
3 1/8	2	1 23/32	2	10.6	11.5	12.6	13.7	48	50	58	60
3 5/16	2 1/8	1 13/16	2 1/8	11.	12.	13.	14.2	41	43	50	52
3 1/2	2 1/4	1 15/16	2 1/4	11.5	12.6	13.5	14.8	36	37	42	43

For less than keg lots (200 pounds) of a size, add 20 cents per cwt. for 100 pounds or over. 50 cents per cwt. for less than 100 pounds.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

COLD PUNCHED, CHAMFERED AND TRIMMED SQUARE AND HEXAGON NUTS.

With Drilled Holes.

SQUARE.

FIG. 2182.

U. S. Standard.

HEXAGON.

FIG. 2183.

SQUARE.						HEXAGON.					
Width Inches.	Thickness, Inches.	Hole, Inches.	Size of Bolt, Inches.	Price in 200 Pound Kegs, Cents, Per Pound.		Price in 200 Pound Kegs, Cents, Per Pound.		Average Number in One Keg.		Average Number in One Keg.	
				Blank.	Tapped	Blank.	Tapped	Blank.	Tapped	Blank.	Tapped
1/2	1/4	3/16	1/4	20.	22.	27.	29.5	12600	13500	13800	14750
19/32	5/16	1/4	5/16	18.	19.5	24.	26.	7600	8150	8933	9560
11/16	3/8	11/32	3/8	14.5	15.6	18.5	20.1	4600	4900	5500	5880
25/32	7/16	11/32	7/16	14.	14.9	18.	19.3	3000	3200	3760	3990
7/8	1/2	13/32	1/2	11.3	12.	14.	15.	2320	2450	2650	2800
31/32	9/16	29/64	9/16	11.3	11.9	14.	14.9	1660	1750	1993	2110
1 1/16	5/8	33/64	5/8	10.	10.5	12.5	13.2	1200	1270	1440	1525
1 1/8	3/4	37/64	3/4	9.7	10.1	11.4	12.	740	780	896	950
1 7/16	7/8	47/64	7/8	9.6	10.	11.1	11.7	480	500	567	600
1 5/8	1	27/32	1	9.4	9.8	10.9	11.5	344	365	408	435
1 13/16	1 1/8	15/16	1 1/8	9.4	9.8	10.9	11.5	244	260	296	313
2	1 1/4	1 1/16	1 1/4	10.1	10.5	11.5	12.1	180	192	208	220
2 3/16	1 3/8	1 5/32	1 3/8	10.3	10.8	12.	12.7	150	160	164	175
2 3/8	1 1/2	1 5/16	1 1/2	10.7	11.3	12.6	13.4	112	120	132	140
2 9/16	1 5/8	1 13/32	1 5/8	11.1	11.8	13.2	14.1	96	100	108	115
2 3/4	1 3/4	1 1/2	1 3/4	11.5	12.2	14.	14.9	72	77	88	93
2 15/16	1 7/8	1 5/8	1 7/8	12.	12.8	14.5	15.5	56	59	71	75
3 1/4	2	1 23/32	2	12.	12.9	14.5	15.6	48	50	60	64
3 5/16	2 1/8	1 13/16	2 1/8	12.5	13.5	15.	16.2	40	42	52	55
3 1/2	2 1/4	1 15/16	2 1/4	12.5	13.6	15.	16.3	32	33	46	48
3 11/16	2 3/8	2 1/16	2 3/8	13.5	14.7	16.	17.4	30	31	38	40
3 7/8	2 1/2	2 1/8	2 1/2	13.5	14.8	16.	17.5	27	28	31	32
4 1/16	2 5/8	2 5/16	2 5/8	14.	15.4	16.5	18.1	20	21	28	29
4 1/4	2 3/4	2 7/16	2 3/4	14.	15.4	16.5	18.1	17	18	26	27
4 5/8	3	2 11/16	3	14.5	16.	17.	18.7	14	15	17	18
5	3 1/4	2 15/16	3 1/4	14.5	16.1	17.	18.8	13	14	14	14
5 3/8	3 1/2	3 5/16	3 1/2	14.5	16.2	17.	18.9	9	10	11	11
6 1/8	4	3 7/16	4	15.5	17.5	18.	20.	5	5	8	8

For less than keg lots (200 pounds) of a size, add 20 cents per cwt. for 100 pounds or over. 50 cents per cwt for less than 100 pounds.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

COLD PUNCHED, CHECK AND JAM NUTS, CHAMFERED, TRIMMED AND REAMED.

FIG. 2184.

Width, Inches.	Thickness, Inches.	Hole, Inches.	Size of Bolt, Inches.	Price, Blank. Cents, Per Pound.	Price, Tapped, Cents, Per Pound.
½	3/16	1/8	¼	33.	35.5
9/32	7/32	1/4	5/16	28.	30.
5/16	¼	9/64	⅜	24.	25.6
25/64	5/16	11/64	7/16	20.	21.3
7/16	5/16	3/16	½	16.5	17.5
1 1/16	3/8	13/64	9/16	15.	15.7
1 1/8	7/16	7/32	⅝	13.5	14.1
1 7/16	½	15/64	¾	13.	13.6
1 5/8	9/16	17/64	⅞	13.	13.6
1 13/16	5/8	19/64	1	13.	13.6
2	¾	11/16	1 1/8	13.5	14.1
2 3/16	13/16	21/64	1 ¼	14.	14.7
2 3/8	⅞	11/32	1 3/8	14.5	15.3
2 9/16	15/16	25/64	1 ½	15.	15.9
2 ¾	1	13/32	1 5/8	16.	16.9
2 15/16	1 1/16	15/32	1 ¾	17.	18.
3 ⅛	1 ⅛	23/32	2	18.	19.1

Hot Forged Joint Nuts.

Length, Inches.	Width, Inches.	Thickness, Inches.	Hole, Inches.	Size of Bolt, Inches.	PRICE IN 200 POUND KEGS, CENTS, PER POUND.	
					Blank.	Tapped.
⅝	½	¼	7/32	¼	13.5	15.5
¾	5/8	9/32	9/32	5/16	12.	13.5
1	¾	5/16	11/32	⅜	10.5	11.6
1⅛	⅞	⅜	⅜	7/16	9.2	10.1
1¼	1	7/16	7/16	½	8.8	9.5
1⅜	1	½	½	9/16	8.6	9.2
1½	1¼	½	½	⅝	8.5	9.
2	1⅜	⅝	5/8	¾	8.4	8.8
2¼	1¼	¾	3/4	⅞	8.3	8.7
2½	2	1	⅞	1	8.2	8.6
2¾	2¼	1 ⅛	1	1 ⅛	8.2	8.6
3	2½	1 ¼	1 1/16	1 ¼	8.4	9.1

For less than keg lots (200 pounds) of a size, add 20 cents per cwt. for 100 pounds or over. 50 cents per cwt. for less than 100 pounds.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

HOT PRESSED AND FORGED, SQUARE AND HEXAGON NUTS

SQUARE.

FIG. 2185.

Manufacturers' Standard.

HEXAGON.

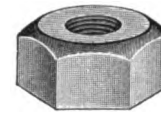

FIG. 2186.

SQUARE.						HEXAGON.					
Width Inches.	Thickness, Inches.	Hole, Inches.	Size of Bolt, Inches.	Price in 200 Pound Kegs, Cents, Per Pound.		Short, Diameter, Inches.	Thickness, Inches.	Hole, Inches.	Size of Bolt, Inches.	Price in 200 Pound Kegs, Cents, Per Pound.	
				Blank.	Tapped					Blank.	Tapped
½	¼	7/32	¼	13.	15.	½	¼	7/32	¼	20.	22.5
5/8	5/16	9/32	5/16	11.5	13.	5/8	5/16	9/32	5/16	16.	18.
¾	⅜	11/32	⅜	10.	11.1	¾	⅜	11/32	⅜	13.	14.6
⅞	7/16	25/64	7/16	9.2	10.1	⅞	7/16	25/64	7/16	11.4	12.7
1	½	7/16	½	8.7	9.4	1	½	7/16	½	10.5	11.5
1⅛	9/16	½	9/16	8.6	9.2	1⅛	9/16	½	9/16	10.4	11.3
1¼	⅝	9/16	⅝	8.5	9.	1¼	⅝	9/16	⅝	10.1	10.8
1⅜	¾	21/32	¾	8.4	8.8	1⅜	¾	21/32	¾	9.9	10.5
1¾	⅞	25/32	⅞	8.3	8.7	1⅝	⅞	25/32	⅞	9.8	10.4
2	1	7/8	1	8.2	8.6	1¾	1	7/8	1	9.7	10.3
2¼	1⅛	31/32	1⅛	8.2	8.6	2	1¼	31/32	1⅛	9.7	10.3
2½	1¼	1 3/32	1¼	8.3	8.7	2¼	1⅜	1 9/32	1¼	9.8	10.4
2¾	1⅜	1 13/16	1⅜	8.5	9.	2½	1½	1 13/16	1⅜	10.	10.7
3	1½	1 5/16	1½	8.7	9.3	2¾	1⅝	1 5/16	1½	10.2	11.
3¼	1⅝	1 7/16	1⅝	8.9	9.6	3	1¾	1 7/16	1⅝	10.4	11.3
3½	1¾	1 9/16	1¾	9.2	9.9	3¼	1⅞	1 9/16	1¾	10.7	11.6
3¾	1⅞	1 11/16	1⅞	9.4	10.2	3½	2	1 11/16	1⅞	10.9	11.9
4	2	1 13/16	2	9.6	10.5	3½	2	1 13/16	2	11.1	12.2
4	2 ⅛	1 7/8	2 ⅛	9.7	10.7	3¾	2 ⅛	1 7/8	2 ⅛	11.4	12.6
4¼	2 ¼	2	2 ¼	9.9	11.	3¾	2 ¼	2	2 ¼	11.6	12.9
4¼	2 ⅜	2 ⅛	2 ⅜	10.1	11.3	4	2 ⅜	2 ⅛	2 ⅜	12.	13.4
4½	2 ½	2 ¼	2 ½	10.3	11.6	4¼	2 ½	2 ¼	2 ½	12.3	13.8
4¾	2 ¾	2 7/16	2 ¾	10.8	12.2	4½	2 ¾	2 7/16	2 ¾	13.	14.6
5	3	2 11/16	3	11.3	12.8	4¾	3	2 11/16	3	13.5	15.2
5½	3 ¼	2 15/16	3 ¼	12.	13.6	5	3 ¼	2 15/16	3 ¼	14.5	16.3
6	3 ½	3 ⅛	3 ½	13.	14.7	5½	3 ½	3 ⅛	3 ½	15.5	17.4

For less than keg lots (200 pounds) of a size, add 20 cents per cwt. for 100 pounds or over. 50 cents per cwt. for less than 100 pounds.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

COLD PUNCHED SQUARE NUTS, PLAIN, CHAMFERED AND TRIMMED.

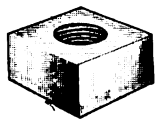

FIG. 2187.

Manufacturers' Standard.

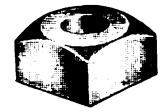

FIG. 2188.

Width, Inches.	Thickness, Inches.	Hole, Inches.	Size of Bolt, Inches.	PRICE IN 200 POUND KEGS, CENTS PER POUND.			
				Plain Blank.	Plain Tapped.	C. & T. Blank.	C. & T. Tapped.
½	¼	7/32	¼	13.8	15.8	20.	22.
5/8	5/16	9/32	5/16	12.3	13.8	16.	17.5
¾	⅜	11/32	⅜	10.8	11.9	13.5	14.6
⅞	7/16	13/32	7/16	9.3	10.2	11.3	12.2
⅞	½	7/16	½	9.3	10.	11.3	12.2
1	½	7/16	½	9.2	9.9	10.2	10.9
1⅛	9/16	½	9/16	9.	9.6	10.	10.6
1⅛	⅝	9/16	⅝	8.9	9.4	10.	10.5
1¼	⅝	9/16	⅝	8.7	9.2	9.7	10.1
1⅜	¾	21/32	¾	8.6	9.	9.6	10.
1½	¾	21/32	¾	8.4	8.8	9.4	9.8
1½	⅞	25/32	⅞	8.6	9.	9.6	10.
1⅝	⅞	25/32	⅞	8.4	8.8	9.4	9.8
1¾	⅞	25/32	⅞	8.4	8.8	9.4	9.8
1¾	1	⅞	1	8.4	8.8	9.4	9.8
2	1	⅞	1	8.4	8.8	9.4	9.8
2	1⅛	15/16	1⅛	8.4	8.8	9.4	9.8
2¼	1⅛	15/16	1⅛	8.4	8.8	9.4	9.8
2¼	1¼	1 1/16	1¼	8.8	9.2	10.1	10.5
2½	1¼	1 1/16	1¼	8.8	9.2	10.1	10.5
2¾	1⅜	1 3/16	1⅜	8.8	9.3	10.1	10.6
3	1½	1 5/16	1½	9.6	10.2	10.7	11.3
3¼	1⅝	1 7/16	1⅝	9.6	10.3	11.1	11.8
3½	1¾	1 9/16	1¾	10.2	10.9	11.5	12.2
3¾	1⅞	1 11/16	1⅞	10.2	11.	12.	12.8
4	2	1 13/16	2	10.6	11.5	12.	12.9

For less than keg lots (200 pounds) of a size, add 20 cents per cwt. for 100 pounds or over, 50 cents per cwt. for less than 100 pounds.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

COLD PUNCHED HEXAGON NUTS, PLAIN, CHAMFERED AND TRIMMED.

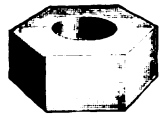

FIG. 2189.

Manufacturers' List.

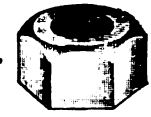

FIG. 2190.

Width, Inches.	Thickness, Inches.	Hole, Inches.	Size of Bolt, Inches.	PRICE IN 200 POUND KEGS, CENTS PER POUND.			
				Plain Blank.	Plain Tapped.	C. & T. Blank.	C. & T. Tapped.
1/2	1/4	7/32	1/4	21.	23.5	27.	29.5
5/8	5/16	9/32	5/16	17.5	19.5	21.5	23.5
3/4	3/8	11/32	3/8	13.8	15.4	17.5	19.1
7/8	7/16	13/32	7/16	11.5	12.8	14.	15.3
7/8	1/2	7/16	1/2	11.5	12.5	14.	15.
1	1/2	7/16	1/2	11.2	12.2	13.	14.
1	9/16	7/16	1/2	11.2	12.2	13.	14.
1 1/8	9/16	1/2	9/16	10.7	11.6	12.5	13.3
1 1/8	5/8	9/16	5/8	10.7	11.4	12.5	13.2
1 1/4	5/8	9/16	5/8	10.2	10.9	11.4	12.
1 1/4	3/4	9/16	5/8	10.2	10.9	11.4	12.
1 3/8	3/4	21/32	3/4	10.2	10.9	11.2	11.8
1 3/8	7/8	21/32	3/4	10.2	10.9	11.2	11.8
1 1/2	3/4	21/32	3/4	10.	10.6	10.9	11.5
1 1/2	7/8	21/32	3/4	10.	10.6	10.9	11.5
1 1/2	7/8	25/32	7/8	10.2	10.8	11.1	11.7
1 1/2	1	25/32	7/8	10.2	10.8	11.1	11.7
1 5/8	7/8	25/32	7/8	10.	10.6	10.9	11.5
1 5/8	1	25/32	7/8	10.	10.6	10.9	11.5
1 3/4	1	7/8	1	10.	10.6	10.9	11.5
1 3/4	1 1/8	7/8	1	10.	10.6	10.9	11.5
2	1 1/8	15/16	1 1/8	10.2	10.8	11.5	12.1
2 1/8	1 3/8	1 1/16	1 1/8	10.5	11.1	11.5	12.1
2 1/2	1 1/2	1 3/16	1 3/8	10.5	11.2	12.	12.7
2 3/4	1 5/8	1 5/16	1 1/2	11.3	12.1	12.5	13.3
3	1 3/4	1 7/16	1 5/8	11.3	12.2	13.2	14.1
3 1/8	1 7/8	1 9/16	1 3/4	12.1	13.	14.	14.9
3 1/2	2	1 11/16	1 7/8	12.1	13.1	14.5	15.5
3 1/2	2	1 13/16	2	12.6	13.7	14.5	15.6
3 1/2	2 1/8	1 13/16	2	12.6	13.7	14.5	15.6

For less than keg lots (200 pounds) of a size, add 20 cents per cwt. for 100 pounds or over, 50 cents per cwt. for less than 100 pounds.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 803

FINISHED CASE-HARDENED AND SEMI-FINISHED HEXAGON NUTS.

SEMI-FINISHED.

FIG. 2191.

Manufacturers' List.

FINISHED.

FIG. 2192

Width, Inches.	Thickness, Inches.	Size of Bolt, Inches.	Number of Threads.	SEMI-FINISHED HEXAGON NUTS.		FINISHED AND CASE HARDENED HEXAGON NUTS.	
				Price, Regular, Each.	Price, Double Chamfer, Each.	Price, Regular, Each.	Price, Double Chamfer, Each.
½	¼	¼	20	.02	.02½	.06	.06½
9/32	5/16	5/16	18	.02½	.02¾	.07	.07½
11/16	3/8	3/8	16	.03½	.04	.08	.08¾
25/32	7/16	7/16	14	.03¾	.04¾	.09	.10
7/8	½	½	13 or 12	.04	.05	.10	.11
31/32	9/16	9/16	12	.05	.06	.12	.13
1 1/16	5/8	5/8	11	.06	.07½	.15	.16½
1 1/8	¾	¾	10	.08½	.10½	.20	.22
1 7/16	7/8	7/8	9	.11	.13½	.25	.27½
1 5/8	1	1	8	.15	.18½	.35	.38½
1 15/16	1 1/8	1 1/8	7	.20	.24½	.45	.49½
2	1 1/4	1 1/4	7	.27	.33	.60	.66
2 3/16	1 3/8	1 3/8	6	.39	.46½	.75	.82
2 3/8	1 ½	1 ½	6	.55	.64	.95	1.05
2 9/16	1 5/8	1 5/8	5½	.72	.83½	1.25	1.38
2 ¾	1 ¾	1 ¾	5	1.05	1.19	1.55	1.70
2 13/16	1 7/8	1 7/8	5	1.30	1.48	2.10	2.30
3 1/8	2	2	4½	1.60	1.82	2.75	3.00
3 5/16	2 1/4	2 1/4	4½	2.35	2.65	5.00	5.50
3 7/8	2 ½	2 ½	4	3.75	4.15	8.50	9.50
4 1/4	2 ¾	2 ¾	4	5.00	5.60	12.00	13.50
4 5/8	3	3	3½	8.00	9.00	18.00	20.00

For nuts thinner or smaller than standard, use regular list.

For semi-finished nuts, case hardened, add 20 per cent. to the list and use double chamfered list if rounded on top.

For finished nuts, not case hardened, use regular list.

For nuts polished after case hardening add 30 per cent. to the list.

The thread and outside of each Finished Nut is made to an accurate gauge and to the standard adopted by the U. S. Government. First-class in all respects.

The Semi-Finished Nuts correspond with the Finished Nuts in all dimensions; they are U. S. Standard Nuts, tapped and faced true on the bottom.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

MACHINE SCREW NUTS.

SQUARE.

FIG. 2193.

HEXAGON.

FIG. 2194.

Square Iron, Tapped, Cold Pressed.

Number.	Threads.	Price, Per Gross.	Number.	Threads.	Price, Per Gross.
4	32, 36, 40	.23	18	16, 18	.62
6	30, 32	.23	20	16, 18	.82
8	30, 32	.26	22	16, 18	.93
10	24, 30, 32	.29	24	14, 16	1.06
12	20, 24	.32	26	14, 16	1.20
14	20, 24	.36	28	14, 16	1.35
16	16, 18, 20	.48	30	14, 16	1.50

Hexagon Iron, Tapped, Cold Pressed.

Number.	Threads.	Price, Per Gross.	Number.	Threads.	Price, Per Gross.
4	32, 36, 40	.36	18	16, 18	.94
6	30, 32	.36	20	16, 18	1.22
8	30, 32	.40	22	16, 18	1.44
10	24, 30, 32	.43	24	14, 16	1.58
12	20, 24	.48	26	14, 16	1.80
14	20, 24	.55	28	14, 16	2.02
16	16, 18, 20	.72	30	14, 16	2.30

Square Brass, Tapped, Pressed.

Number.	Threads.	Price, Per Gross.	Number.	Threads.	Price, Per Gross.
4	32, 36, 40	.72	18	16, 18	1.88
6	30, 32	.72	20	16, 18	2.45
8	30, 32	.80	22	16, 18	2.70
10	24, 30, 32	.87	24	14, 16	3.17
12	20, 24	.94	26	14, 16	3.60
14	20, 24	1.08	28	14, 16	4.10
16	16. 18, 20	1.44	30	14, 16	4.55

Hexagon Brass, Tapped, Pressed.

Number.	Threads.	Price, Per Gross.	Number,	Threads.	Price, Per Gross.
4	32, 36, 40	1.08	18	16, 18	2.81
6	30, 32	1.08	20	16, 18	3.67
8	30, 32	1.22	22	16, 18	4.32
10	24, 30, 32	1.30	24	14, 16	4.75
12	20, 24	1.44	26	14, 16	5.40
14	20, 24	1.66	28	14, 16	6.05
16	16, 18, 20	2.16	30	14, 16	6.81

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 805

THUMB NUTS.

DROP FORGED.

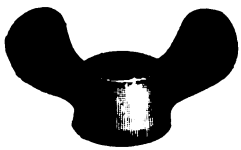

FIG. 2195.

MALLEABLE IRON.

FIG. 2196.

Drop Forged Thumb Nuts.

Bolt Size.....inches	1/8	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4
Diameter of Top...inches	1/4	5/16	3/8	7/16	1/2	9/16	5/8	11/16	3/4	7/8
Price, Blank..per hundred	3.00	3.50	4.00	4.50	5.00	6.00	8.00	10.00	12.00	16.00
Price, Threaded..per hundred	6.00	7.50	8.00	9.00	10.00	12.00	16.00	20.00	24.00	32.00

Malleable Iron Thumb Nuts.

Bolt Size.....inches	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4
Price, Blank.....per pound	.25	.15	.12	.12	.12	.10	.10	.10
Price, Threaded.....per hundred	1.45	1.60	1.80	2.25	2.80	4.00	6.00	7.00

MACHINE HANDLES.

BALL PATTERN.

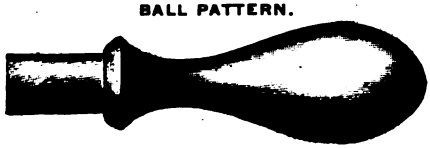

FIG. 2197.

CONE PATTERN.

FIG. 2198.

Ball Pattern, Unfinished.

Number.....	00	0	1	2	3	4	5	6	7
Length.....inches	2	2 1/4	2 3/8	3 1/4	3 7/8	4 1/2	5 1/8	5 3/4	6 5/8
Standard Length, Shank.....inches	1/2	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 1/2
Maximum Length, Shank.....inches	1 1/16	3/4	1	1 1/8	1 1/4	1 1/2	1 7/8	2	2 3/8
Diameter, Shank.....inches	5/16	11/32	13/32	15/32	15/32	17/32	19/32	11/16	3/4
Price.....each	.04	.05	.06	.08	.10	.12	.14	.16	.22

Cone Pattern, Unfinished.

Number.....	11	13	15	16
Length.....inches	3 3/8	4 1/2	5 1/2	6
Standard Length, Shank.....inches	1/2	3/4	7/8	1 1/8
Maximum Length, Shank.....inches	1 1/32	1 1/8	1 3/8	1 1/2
Diameter, Shank.....inches	3/8	7/16	1/2	9/16
Price.....each	.06	.10	.14	.16

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WROUGHT AND CAST IRON WASHERS.

WROUGHT IRON.

FIG. 2199.

CAST IRON.

FIG. 2200.

LOCK WASHER.

FIG. 2201.

Wrought Iron Washers.

Diameter, Inches.	Hole, Inches.	Thickness of Wire Gauge, Number.	Size of Bolt, Inches.	Price in 200 Pound Kegs, Cents, Per Pound.	Number In One Keg.
9/16	1/4	18	3/16	14.	85200
3/4	5/16	16	1/4	12.2	34800
7/8	3/8	16	5/16	11.4	26200
1	7/16	14	3/8	10.5	14400
1 1/4	9/16	14	7/16	9.7	8400
1 3/8	5/8	12	1/2	9.20	5800
1 1/2	5/8	12	9/16	9.10	4600
1 3/4	1 1/16	10	5/8	9.	2600
2	1 3/16	10	3/4	8.80	2200
2 1/4	1 5/16	9	7/8	8.80	1600
2 1/2	1 5/16	9	1	8.80	1200
2 3/4	1 1/2	9	1 1/8	8.80	888
3	1 5/8	9	1 1/4	9.	900
3 1/4	1 9/16	8	1 3/8	9.	600
3 1/2	1 5/8	8	1 1/2	9.20	570
3 3/4	1 3/4	8	1 5/8	9.20	460
4	1 7/8	8	1 3/4	9.50	432
4 1/4	2	8	1 7/8	9.50	366
4 1/2	2 1/8	8	2	9.50	356

Special sizes made to order.

For less than keg lots (200 pounds) of a size add 20 cents per cwt. for 100 pounds or over. 50 cents per cwt. for less than 100 pounds.

Cast Iron Washers.

Diameter, Inches.	Hole, Inches.	Thickness, Inches,	Size of Bolt, Inches.	Weight, Pounds.
2 1/2	5/8	1 1/16	1/2	1/2
2 3/4	3/4	3/4	5/8	3/4
3	7/8	1 1/16	3/4	1
3 1/2	1	7/8	7/8	1 1/4
4	1 1/8	1 5/16	1	1 3/4
4 1/2	1 1/4	1	1 1/8	2 1/4
5	1 3/8	1 1/8	1 1/4	3
6	1 3/4	1 1/4	1 1/2	5

Lock Washers.

Size ..... inches	3/8	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 1/2
Price.....per thousand	.....	.....	.....	.....	.....	.....	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. 807 CLEVELAND

MACHINE BOLTS.

With Square Heads, Square Nuts and Finished Points.

FIG. 2202.

Length Inches.	PRICE, PER HUNDRED.										
	1/4	5/16	3/8	7/16	1/2	9/16 & 5/8	3/4	7/8	1	1 1/8	1 1/4
3/4 to 1 1/2	1.70	2.00	2.40	2.80	3.60	5.20	7.20	10.50	15.10	22.50	30.00
2	1.78	2.12	2.56	3.00	3.86	5.58	7.70	11.20	16.00	23.70	31.50
2 1/2	1.86	2.24	2.72	3.20	4.12	5.96	8.20	11.90	16.90	24.90	33.00
3	1.94	2.36	2.88	3.40	4.38	6.34	8.70	12.60	17.80	26.10	34.50
3 1/2	2.02	2.48	3.04	3.60	4.64	6.72	9.20	13.30	18.70	27.30	36.00
4	2.10	2.60	3.20	3.80	4.90	7.10	9.70	14.00	19.60	28.50	37.50
4 1/2	2.18	2.72	3.36	4.00	5.16	7.48	10.20	14.70	20.50	29.70	39.00
5	2.26	2.84	3.52	4.20	5.42	7.86	10.70	15.40	21.40	30.90	40.50
5 1/2	2.34	2.96	3.68	4.40	5.68	8.24	11.20	16.10	22.30	32.10	42.00
6	2.42	3.08	3.84	4.60	5.94	8.62	11.70	16.80	23.20	33.30	43.50
6 1/2	2.50	3.20	4.00	4.80	6.20	9.00	12.20	17.50	24.10	34.50	45.00
7	2.58	3.32	4.16	5.00	6.46	9.38	12.70	18.20	25.00	35.70	46.50
7 1/2	2.66	3.44	4.32	5.20	6.72	9.76	13.20	18.90	25.90	36.90	48.00
8	2.74	3.56	4.48	5.40	6.98	10.14	13.70	19.60	26.80	38.10	49.50
9	2.90	3.80	4.80	5.80	7.50	10.90	14.70	21.00	28.60	40.50	52.50
10	3.06	4.04	5.12	6.20	8.02	11.66	15.70	22.40	30.40	42.90	55.50
11	3.22	4.28	5.44	6.60	8.54	12.42	16.70	23.80	32.20	45.30	58.50
12	3.38	4.52	5.76	7.00	9.06	13.18	17.70	25.20	34.00	47.70	61.50
13	3.54	4.76	6.08	7.40	9.58	13.94	18.70	26.60	35.80	50.10	64.50
14	3.70	5.00	6.40	7.80	10.10	14.70	19.70	28.00	37.60	52.50	67.50
15	3.86	5.24	6.72	8.20	10.62	15.46	20.70	29.40	39.40	54.90	70.50
16	4.02	5.48	7.04	8.60	11.14	16.22	21.70	30.80	41.20	57.30	73.50
17	4.18	5.72	7.36	9.00	11.66	16.98	22.70	32.20	43.00	59.70	76.50
18	4.34	5.96	7.68	9.40	12.18	17.74	23.70	33.60	44.80	62.10	79.50
19	4.50	6.20	8.00	9.80	12.70	18.50	24.70	35.00	46.60	64.50	82.50
20	4.66	6.44	8.32	10.20	13.22	19.26	25.70	36.40	48.40	66.90	85.50
21	.....	.....	.....	.....	.....	.....	26.70	37.80	50.20	69.30	88.50
22	.....	.....	.....	.....	.....	.....	27.70	39.20	52.00	71.70	91.50
23	.....	.....	.....	.....	.....	.....	28.70	40.60	53.80	74.10	94.50
24	.....	.....	.....	.....	.....	.....	29.70	42.00	55.60	76.50	97.50
25	.....	.....	.....	.....	.....	.....	30.70	43.40	57.40	78.90	100.50
26	.....	.....	.....	.....	.....	.....	31.70	44.80	59.20	81.30	103.50
27	.....	.....	.....	.....	.....	.....	32.70	46.20	61.00	83.70	106.50
28	.....	.....	.....	.....	.....	.....	33.70	47.60	62.80	86.10	109.50
29	.....	.....	.....	.....	.....	.....	34.70	49.00	64.60	88.50	112.50
30	.....	.....	.....	.....	.....	.....	35.70	50.40	66.40	90.90	115.50

The following extras are to be understood as a part of this list—

Bolts with Hexagon Heads or Hexagon Nuts, 10 per cent extra.

If both Hexagon Heads and Hexagon Nuts, 20 per cent extra.

Joint Bolts with Oblong Nuts, 10 per cent extra.

Bolts with Tee Heads, Askew Heads and Eccentric Heads, 20 per cent extra.

Key Bolts, 20 per cent extra.

Bolts with Cotter Holes, 25 per cent extra.

Special. Bolts with irregular Threads and unusual dimensions of Heads or Nuts will be charged extra, at the discretion of the manufacturer.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

COACH AND LAG SCREWS.

With Square Heads.

GIMLET POINT COACH SCREW.

FIG. 2203.

CONE POINT LAG SCREW.

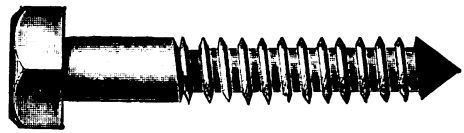

FIG. 2204.

Length, Inches.	PRICE PER HUNDRED.							
	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$ and $\frac{5}{8}$	$\frac{3}{4}$	$\frac{5}{8}$	1
$1\frac{1}{2}$	2.25	2.70	3.15	3.75	.....	....	.....	.....
2	2.45	2.96	3.47	4.11	5.00	.....	.....	.....
$2\frac{1}{2}$	2.65	3.22	3.79	4.47	5.50	7.90	.....	....
3	2.85	3.48	4.11	4.83	6.00	8.60	12.50	.....
$3\frac{1}{2}$	3.05	3.74	4.43	5.19	6.50	9.30	13.50	18.20
4	3.25	4.00	4.75	5.55	7.00	10.00	14.50	19.50
$4\frac{1}{2}$	3.45	4.26	5.07	5.91	7.50	10.70	15.50	20.80
5	3.65	4.52	5.39	6.27	8.00	11.40	16.50	22.10
$5\frac{1}{2}$	3.85	4.78	5.71	6.63	8.50	12.10	17.50	23.40
6	4.05	5.04	6.03	6.99	9.00	12.80	18.50	24.70
$6\frac{1}{2}$	4.25	5.30	6.35	7.35	9.50	13.50	19.50	26.00
7	4.45	5.56	6.67	7.71	10.00	14.20	20.50	27.30
$7\frac{1}{2}$	4.65	5.82	6.99	8.07	10.50	14.90	21.50	28.60
8	4.85	6.08	7.31	8.43	11.00	15.60	22.50	29.90
9	5.25	6.60	7.95	9.15	12.00	17.00	24.50	32.50
10	5.65	7.12	8.59	9.87	13.00	18.40	26.50	35.10
11	6.05	7.64	9.23	10.59	14.00	19.80	28.50	37.70
12	6.45	8.16	9.87	11.31	15.00	21.20	30.50	40.30

The following extras are to be understood as a part of this list:

Hexagon Heads, 10 per cent extra.

Tee Heads, 20 per cent extra.

Skein Screws, list price, same as Lag Screws.

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THE W. M. PATTISON SUPPLY CO. 809 CLEVELAND

COMMON CARRIAGE BOLTS.

With Short Full Sized Square Under Heads, Forged Nuts and Finished Points.

FIG. 2205.

Length, Inches.	PRICE PER HUNDRED.						
	Diameter, $\frac{1}{4}$ and $\frac{5}{16}$ Inch.	Diameter, $\frac{3}{8}$ Inch.	Diameter, $\frac{7}{16}$ Inch.	Diameter, $\frac{1}{2}$ Inch.	Diameter, $\frac{9}{16}$ Inch.	Diameter, $\frac{5}{8}$ and $\frac{3}{4}$ Inch.	Diameter, $\frac{7}{8}$ Inch.
1	1.00	1.20	1.60	2.20	.....	.....	.....
1¼	1.00	1.20	1.60	2.20	.....	.....	.....
1½	1.00	1.20	1.60	2.20	3.00	5.20	7.20
1¾	1.04	1.25	1.68	2.29	3.00	5.20	7.20
2	1.08	1.30	1.76	2.38	3.00	5.20	7.20
2¼	1.12	1.35	1.84	2.47	3.00	5.20	7.20
2½	1.16	1.40	1.92	2.56	3.00	5.20	7.20
2¾	1.20	1.45	2.00	2.65	3.11	5.37	7.43
3	1.24	1.50	2.08	2.74	3.22	5.54	7.66
3¼	1.28	1.55	2.16	2.83	3.33	5.71	7.89
3½	1.32	1.60	2.24	2.92	3.44	5.88	8.12
3¾	1.36	1.65	2.32	3.01	3.55	6.05	8.35
4	1.40	1.70	2.40	3.10	3.66	6.22	8.58
4¼	1.44	1.75	2.48	3.19	3.77	6.39	8.81
4½	1.48	1.80	2.56	3.28	3.88	6.56	9.04
4¾	1.52	1.85	2.64	3.37	3.99	6.73	9.27
5	1.56	1.90	2.72	3.46	4.10	6.90	9.50
5½	1.64	2.00	2.88	3.64	4.32	7.24	9.96
6	1.72	2.10	3.04	3.82	4.54	7.58	10.42
6½	1.80	2.20	3.20	4.00	4.76	7.92	10.88
7	1.88	2.30	3.36	4.18	4.98	8.26	11.34
7½	1.96	2.40	3.52	4.36	5.20	8.60	11.80
8	2.04	2.50	3.68	4.54	5.42	8.94	12.26
8½	2.12	2.60	3.84	4.72	5.64	9.28	12.72
9	2.20	2.70	4.00	4.90	5.86	9.62	13.18
9½	2.28	2.80	4.16	5.08	6.08	9.96	13.64
10	2.36	2.90	4.32	5.26	6.30	10.30	14.10
10½	2.44	3.00	4.48	5.44	6.52	10.64	14.56
11	2.52	3.10	4.64	5.62	6.74	10.98	15.02
11½	2.60	3.20	4.80	5.80	6.96	11.32	15.48
12	2.68	3.30	4.96	5.98	7.18	11.66	15.94
13	2.84	3.50	5.28	6.34	7.62	12.34	16.86
14	3.00	3.70	5.60	6.70	8.06	13.02	17.78
15	3.16	3.90	5.92	7.06	8.50	13.70	18.70
16	3.32	4.10	6.24	7.42	8.94	14.38	19.62
17	3.48	4.30	6.56	7.78	9.38	15.06	20.54
18	3.64	4.50	6.88	8.14	9.82	15.74	21.46
19	3.80	4.70	7.20	8.50	10.26	16.42	22.38
20	3.96	4.90	7.52	8.86	10.70	17.10	23.30

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STOVE BOLTS.

FLAT HEAD.

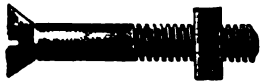

FIG. 2206.

ROUND HEAD.

FIG. 2207.

Length, Inches.	PRICE PER HUNDRED.							
	FLAT HEAD STOVE BOLTS				ROUND HEAD STOVE BOLTS.			
	Diameter, 3/16 and 1/4 Inch.	Diameter 5/16 and 3/8 Inch.	Diameter 7/16 Inch.	Diameter 1/2 Inch.	Diameter 3/16 and 1/4 Inch.	Diameter 5/16 and 3/8 Inch.	Diameter 7/16 Inch.	Diameter 1/2 Inch.
3/8	.75	.90	1.30	2.50	.85	1.00	1.55	2.65
1/2	.75	.90	1.30	2.50	.85	1.00	1.55	2.65
5/8	.75	.90	1.30	2.50	.85	1.00	1.55	2.65
3/4	.75	.90	1.30	2.50	.85	1.00	1.55	2.65
7/8	.80	.95	1.35	2.55	.90	1.05	1.60	2.70
1	.80	.95	1.40	2.60	.90	1.05	1.65	2.75
1 1/8	.85	1.00	1.45	2.65	.95	1.10	1.70	2.80
1 1/4	.85	1.00	1.50	2.70	.95	1.10	1.75	2.85
1 3/8	.90	1.05	1.60	2.80	1.00	1.15	1.80	2.90
1 1/2	.90	1.05	1.70	2.90	1.00	1.15	1.85	2.95
1 3/4	.95	1.10	1.80	3.00	1.05	1.20	1.95	3.05
2	1.00	1.15	1.90	3.10	1.10	1.25	2.05	3.20
2 1/4	1.05	1.20	2.00	3.20	1.15	1.30	2.15	3.35
2 1/2	1.10	1.25	2.10	3.30	1.20	1.35	2.25	3.50
2 3/4	1.15	1.30	2.20	3.40	1.25	1.40	2.35	3.65
3	1.20	1.35	2.30	3.50	1.30	1.45	2.45	3.80
3 1/4	1.25	1.40	2.40	3.60	1.35	1.50	2.55	3.95
3 1/2	1.30	1.45	2.50	3.70	1.40	1.55	2.65	4.10
3 3/4	1.35	1.50	2.60	3.80	1.45	1.60	2.75	4.25
4	1.40	1.55	2.70	3.90	1.50	1.65	2.85	4.40
4 1/4	1.45	1.60	2.80	4.05	1.55	1.70	2.95	4.55
4 1/2	1.50	1.65	2.90	4.20	1 60	1.75	3.05	4.70
4 3/4	1.55	1.70	3.00	4.35	1.65	1.80	3.15	4.85
5	1.60	1.75	3.10	4.50	1.70	1.85	3.25	5.00
5 1/4	1.65	1.80	3.20	4.65	1.75	1.90	3.35	5.15
5 1/2	1.70	1.85	3.30	4.80	1.80	1.95	3.45	5.30
5 3/4	1.75	1.90	3.40	4.95	1.85	2.00	3.55	5.45
6	1.80	1.95	3.50	5.10	1.90	2.05	3.65	5.60
6 1/4	1.85	2.00	3.60	5.25	1.95	2.10	3.75	5.75
6 1/2	1.90	2.05	3.70	5.40	2.00	2.15	3.85	5.90

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THE W. M. PATTISON SUPPLY CO. 811 CLEVELAND

BOLT ENDS.

With Square Nuts.

FIG. 2208.

Size of Iron, Inches.	Length, Inches.	Price, Per Pound.	Size of Iron, Inches.	Length, Inches.	Price, Per Pound.
3/16	6 and 8	.32	1 1/4	14	.11
1/4	8	.25	1 3/8	15	.11
5/16	8	.20	1 1/2	16	.11
3/8	7 and 10	.18	1 5/8	17	.12
7/16	10	.16	1 3/4	18	.12
1/2 and 9/16	8 and 12	.14	1 7/8	19	.12
5/8	9 and 12	.12	2	20	.12
3/4	10 and 12	.10	2 1/4	22	.14
7/8	11 and 12	.10	2 1/2	24	.14
1	12	.10	2 3/4	24	.16
1 1/8	13	.10	3	26	.18

With Hexagon Nuts, 10 per cent extra.

Bolt Ends ordered shorter than above Standard lengths, in lots of 100 and over, will be charged at the price per hundred of Machine Bolts of same length, subject to same discount; in smaller lot extra. Only the larger sizes enumerated are kept in stock.

Net Prices for Extra Length of Threads and Extra Nuts on Bolts.

Size of Bolt.....inches	1/4	5/16	3/8	7/16	1/2	9/16 & 5/8	3/4	7/8	1
Extreme Length of Thread.....inches	3/4	1 1/8	1 1/8	1 5/16	1 1/2	1 7/8	2 1/4	2 5/8	3
For each additional 1/4 inch of Thread.....per 100 Bolts	.02	.02	.02 1/2	.03	.04	.06	.08	.10	.12
For one extra square Nut.....per 100 Bolts	.25	.35	.45	.55	.65	.85	1.35	2.00	3.00
For one extra hexagon Nut.....per 100 Bolts	.35	.45	.55	.70	.85	1.15	1.75	2.50	3.60
Size of Nut.....inches	3/16	1/4	5/16	3/8	7/16	1/2	.....	.....	.....
For one Thumb or Wing Nut in place of square or hexagon Nuts.....per 100 Bolts	.30	.40	.50	.60	.75	.90	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

COUPLING BOLTS.

Hexagon Heads and Nuts Semi-Finished.

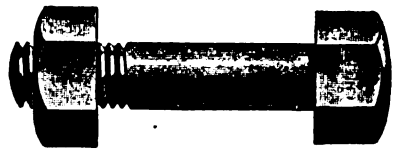

FIG. 2209.

Diameter of Head, Inches.	PRICE PER HUNDRED.						
	$\frac{7}{8}$	$1\frac{1}{16}$	$1\frac{1}{4}$	$1\frac{7}{16}$	$1\frac{5}{8}$	$1\frac{13}{16}$	2
Length of Head, Inches.	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$
Diameter of Bolt, Inches.	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$
Length under Head to Extreme Point, inches. 2	20.00	25.00	.....	.....	.....	.....	.....
$2\frac{1}{4}$	20.50	25.75	32.00	.....	.....	.....	.....
$2\frac{1}{2}$	21.00	26.50	32.00	38.75	.....	.....	.....
$2\frac{3}{4}$	21.50	27.25	33.00	39.75	56.00	.....	.....
3	22.00	28.00	34.00	40.75	56.00	70.00	.....
$3\frac{1}{4}$	22.50	28.75	35.00	41.75	57.00	71.50	100.00
$3\frac{1}{2}$	23.00	29.50	36.00	42.75	58.00	73.00	100.00
$3\frac{3}{4}$	23.50	30.25	37.00	43.75	59.00	74.50	102.50
4	24.00	31.00	38.00	44.75	60.00	76.00	105.00
$4\frac{1}{4}$	24.50	31.75	39.00	45.75	61.00	77.50	107.50
$4\frac{1}{2}$	25.00	32.50	40.00	46.75	62.00	79.00	110.00
$4\frac{3}{4}$	25.50	33.25	41.00	47.75	63.00	80.50	112.50
5	.....	34.00	42.00	48.75	64.00	82.00	115.00
$5\frac{1}{4}$	.....	.....	43.00	49.75	65.00	83.50	117.50
$5\frac{1}{2}$	.....	.....	.....	50.75	66.00	85.00	120.00
$5\frac{3}{4}$	.....	.....	.....	.....	67.00	86.50	122.50
6	.....	.....	.....	.....	.....	88.00	125.00
Thickness of Nut, Inches.	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$
Short Diameter of Nut, Inches.	$\frac{7}{8}$	$1\frac{1}{16}$	$1\frac{1}{4}$	$1\frac{7}{16}$	$1\frac{5}{8}$	$1\frac{13}{16}$	2

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

PLOW AND CULTIVATOR BOLTS.

With Forged Nuts.

KEY HEAD.

FIG. 2210.
No. 1.

ROUND HEAD.

FIG. 2211.
No. 2.

ROUND HEAD, SQUARE SHANK.

FIG. 2212.
No. 3.

SQUARE HEAD.

FIG. 2213.
No. 4.

LARGE. ROUND HEAD.

FIG. 2214.
No. 5.

Length, Inches.	PRICE PER HUNDRED.					
	5/16	3/8	7/16	1/2	9/16	5/8
1¼	1.70	2.00	2.60	3.50	4.50	5.70
1½	1.80	2.10	2.75	3.70	4.75	6.00
1¾	1.90	2.20	2.90	3.90	5.00	6.30
2	2.00	2.30	3.05	4.10	5.25	6.60
2¼	2.10	2.40	3.20	4.30	5.50	6.90
2½	2.20	2.50	3.35	4.50	5.75	7.20
2¾	2.30	2.60	3.50	4.70	6.00	7.50
3	2.40	2.70	3.65	4.90	6.25	7.80
3¼	2.50	2.80	3.80	5.10	6.50	8.10
3½	2.60	2.90	3.95	5.30	6.75	8.40
3¾	2.70	3.00	4.10	5.50	7.00	8.70
4	2.80	3.10	4.25	5.70	7.25	9.00

In ordering Plow Bolts, please state what style Heads are desired.
Right-hand Threads will be sent, unless Left-hand Threads are ordered.

LARGE KEY HEAD.

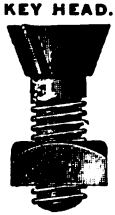

FIG. 2215.
No. 6.

REVERSE KEY HEAD.

FIG. 2216.
No. 7.

CONCAVE HEAD.

FIG. 2217.
No. 8.

BUTTON HEAD.

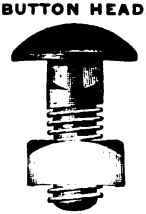

FIG. 2218.
No. 9.

TEE HEAD.

FIG. 2219.
No. 10.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND
814

UNION TIRE BOLTS.

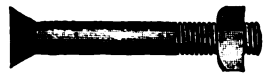

FIG. 2220.

Length, Inches.	PRICE PER HUNDRED.				Length, Inches.	PRICE PER HUNDRED.			
	Diameter, 5/16 Inch.	Diameter, 3/8 Inch.	Diameter, 7/16 Inch.	Diameter 1/2 Inch.		Diameter, 5/16 Inch.	Diameter, 3/8 Inch.	Diameter, 7/16 Inch.	Diameter 1/2 Inch.
1	.60	.95	1.40	2.20	3¾	1.05	1.40	1.96	2.90
1¼	.60	.95	1.40	2.20	4	1.10	1.45	2.03	3.00
1½	.60	.95	1.40	2.20	4¼	.....	1.50	2.10	3.10
1¾	.65	1.00	1.40	2.20	4½	.....	1.55	2.17	3.20
2	.70	1.05	1.47	2.20	4¾	.....	1.60	2.24	3.30
2¼	.75	1.10	1.54	2.30	5	.....	1.65	2.31	3.40
2½	.80	1.15	1.61	2.40	5¼	.....	.....	2.38	3.50
2¾	.85	1.20	1.68	2.50	5½	.....	.....	2.45	3.60
3	.90	1.25	1.75	2.60	5¾	.....	.....	2.52	3.70
3¼	.95	1.30	1.82	2.70	6	.....	.....	2.59	3.80
3½	1.00	1.35	1.89	2.80	.....	.....	.....	.....	.....

ELEVATOR BOLTS.

FLAT HEAD. OVAL HEAD. RELIANCE HEAD. KEY HEAD. BUTTON HEAD.

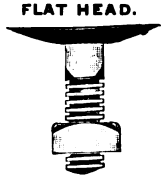

FIG. 2221.

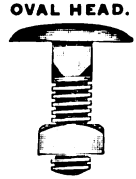

FIG. 2222.

FIG. 2223.

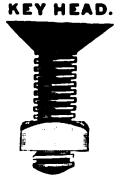

FIG. 2224.

FIG. 2225.

Length, Inches.	PRICE PER HUNDRED.					
	FLAT HEAD.			OVAL HEAD.	KEY & RELIANCE HEAD.	BUTTON HEAD.
	Diameter, 5/16 and 3/8 Inch.	Diameter, 7/16 Inch.	Diameter, 1/2 Inch.	Diameter, 5/16 and 3/8 Inch.	Diameter, 5/16 and 3/8 Inch.	Diameter, 5/16 and 3/8 Inch.
¾	2.20	.....	.....	1.50	1.50	1.50
⅞	2.30	.....	.....	1.60	1.60	1.60
1	2.30	3.00	4.00	1.60	1.60	1.60
1⅛	.....	.....	.....	1.70	1.70	.....
1¼	2.40	3.20	4.30	1.80	1.80	1.80
1½	.....	3.40	4.60	....	....	....

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THE W. M. PATTISON SUPPLY CO. 815 CLEVELAND

BOILER PATCH AND PLANER HEAD BOLTS.

BOILER PATCH BOLTS.

FIG. 2226.

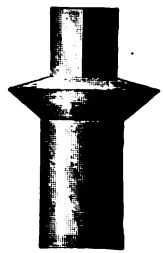

FIG. 2227.

PLANER HEAD BOLT.

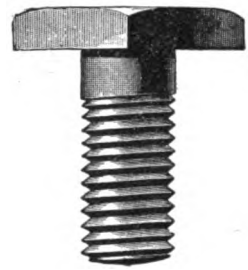

FIG. 2228.

Boiler Patch Bolts.

Diameter, Inches.		PRICE, PER HUNDRED, TURNED AND THREADED.				
		½	⅝	¾	⅞	1
Length from Largest Diameter of Bevel to Point, Inches.	¾	3.75	4.25	.....	.....	.....
	⅞	4.00	4.50	6.00	.....	.....
	1	4.25	4.80	6.50	9.50	13.50
	1⅛	.....	5.10	6.80	9.85	14.00
	1¼	.....	5.50	7.25	10.25	14.75
	1½	.....	6.30	8.15	11.15	16.25
Threads to Inch.		14	12	12	12	12
Blanks: Diameter.....inches		¼	⅝	¾	⅞	1
Price.....per pound		.25	.20	.19	.18	.17

Planer Head Bolts.

Diameter of Head, Inches.		PRICE PER HUNDRED WITHOUT NUTS.				
		⅞	1	1⅛	1⅛	1¼
Length of Head, Inches.		5/16	5/16	⅜	⅜	7/16
Diameter of Screw, Inches.		½	9/16	⅝	11/16	¾
Length under Head to Extreme Point, Inches	1	10.00	.....	.....	.....	.....
	1¼	10.50	12.00	13.30	13.30	17.00
	1½	10.50	12.25	14.00	14.00	17.50
	1¾	.....	12.45	14.80	14.80	18.00
	2	.....	13.75	15.70	15.70	19.00
Finished Case Hardened Hexagon Nuts for above.		10.00	12.00	15.00	16.00	18.00

All 12 threads to the inch.

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MILLED IRON STUDS.

FIG. 2229.

Diameter, Inches.	PRICE, PER HUNDRED.									
Length of Studs, Inches.	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1 1/8	1 1/4
1¼	3.35	4.05	4.40	5.10	.....	.....	.....	.....	.....	.....
1½	3.50	4.20	4.60	5.30	6.10	.....	.....	.....	.....	.....
1¾	3.65	4.35	4.80	5.50	6.30	.....	.....	.....	.....	.....
2	3.80	4.50	5.00	5.70	6.50	8.80	.....	.....	.....	.....
2¼	3.95	4.65	5.20	5.90	6.70	9.10	.....	.....	.....	.....
2½	4.10	4.80	5.40	6.10	6.90	9.40	12.00	.....	.....	.....
2¾	4.25	4.95	5.60	6.30	7.10	9.70	12.50	.....	.....	.....
3	4.40	5.10	5.80	6.50	7.30	10.00	13.00	17.00	21.00	.....
3¼	.....	5.25	6.00	6.70	7.50	10.30	13.50	17.75	22.00	.....
3½	.....	5.40	6.20	6.90	7.70	10.60	14.00	18.50	23.00	27.00
3¾	.....	5.55	6.40	7.10	7.90	10.90	14.50	19.25	24.00	28.00
4	.....	.....	6.60	7.30	8.10	11.20	15.00	20.00	25.00	29.00
4¼	.....	.....	6.70	7.40	8.25	14.45	15.40	20.50	25.75	29.75
4½	.....	.....	6.80	7.50	8.40	11.65	15.75	21.00	26.50	30.50
4¾	.....	.....	.....	7.60	8.55	11.90	16.15	21.50	27.25	31.25
5	.....	.....	.....	7.70	8.70	12.10	16.50	22.00	28.00	32.00
5¼	.....	.....	.....	7.80	8.85	12.35	16.90	22.50	28.75	32.75
5½	.....	.....	.....	.....	9.00	12.55	17.25	23.00	29.50	33.50
5¾	.....	.....	.....	.....	9.15	12.80	17.65	23.50	30.25	34.25
6	.....	.....	.....	.....	9.30	13.00	18.00	24.00	31.00	35.00
Threads to Inch.	16	14	12	12	11	10	9	8	7	7
Add for Each ¼ Inch.	.15	.20	.20	.20	.25	.30	.40	.60	.75	1.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 817

STANDARD TRACK BOLTS.

FIG. 2230.

Size, Inches.	ESTIMATED NUMBER IN A 200 POUND KEG.			
	U. S. STANDARD NUTS.		MFRS. STANDARD NUTS.	
	Square.	Hexagon.	Square.	Hexagon.
¾ x 4½	233	240	200	230
4	241	249	226	236
3¾	249	258	233	243
3½	257	267	240	250
3¼	265	276	249	257
3	273	285	255	265
⅝ x 3½	.....	.....	340	370
3¼	.....	.....	360	390
3	.....	.....	380	410
2¾	.....	.....	400	430
2½	.....	.....	420	450
½ x 3	.....	.....	640	690
2¾	.....	.....	670	720
2½	.....	.....	700	750
2¼	.....	.....	730	780

Sizes of Bolts Used on Different Weights of Rails.

Size of Bolts, Inches.	Weight of Rails Per Yard, Pounds.	Size of Bolts, Inches.	Weight of Rails Per Yard, Pounds.
⅝ x 2	16	¾ x 3½	55
⅝ x 2¼	20 to 25	¾ x 3¾	60–65–70
⅝ x 2½	30 to 35	¾ x 4	75 to 80
¾ x 3	40 to 46	¾ x 4¼	85 to 90
¾ x 3¼	50	⅞ x 4½	96 to 100

Drift Bolts.

Round or Square Drift Bolts with or without Heads or Points.

Prices on application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TURN BUCKLES.

FIG. 2231.

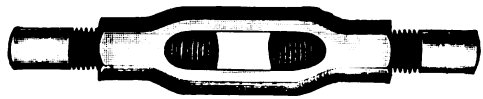

FIG. 2232.

Size, Inches.	Price, Each.	Size, Inches.	Price, Each.	Size, Inches.	Price, Each.	Size, Inches.	Price, Each.
$\frac{3}{8}$	.40	$1\frac{1}{8}$	1.00	$1\frac{7}{8}$	2.25	$2\frac{3}{4}$	5.50
$\frac{7}{16}$	.42	$1\frac{1}{4}$	1.25	2	2.65	3	6.50
$\frac{1}{2}$	.45	$1\frac{3}{8}$	1.38	$2\frac{1}{8}$	3.10	$3\frac{1}{4}$	8.00
$\frac{9}{16}$	.50	$1\frac{1}{2}$	1.50	$2\frac{1}{4}$	3.50	$3\frac{1}{2}$	10.00
$\frac{5}{8}$	.63	$1\frac{5}{8}$	1.75	$2\frac{3}{8}$	4.00	$3\frac{3}{4}$	15.00
$\frac{3}{4}$	.75	$1\frac{3}{4}$	2.00	$2\frac{1}{2}$	4.50	4	20.00
$\frac{7}{8}$							
1	.88	.....	.....	.....	.....	.....	.....

All ordinary sizes carried in stock. Turn buckles of any length made to order at short notice. Buckles without Stub Ends furnished when desired.

BRIDGE AND ROOF BOLTS.

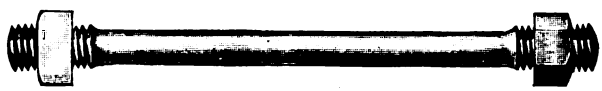

FIG. 2233.

PRICE PER POUND.

With Square Head on one end and Square Nut on the other, or Square Nut on each end as preferred.					With both ends Upset and fitted with Hexagon Nuts.				
Length, Feet.	Diam. $\frac{5}{8}$ Inch. Cents.	Diam. $\frac{3}{4}$ to $1\frac{1}{8}$ inch. Cents.	Diam. $1\frac{1}{4}$ to $1\frac{1}{2}$ Inch. Cents.	Diam. $1\frac{5}{8}$ to 2 Inch. Cents.	Length, Feet.	Diam. $\frac{3}{4}$ to $1\frac{1}{8}$ Inch. Cents.	Diam. $1\frac{1}{4}$ to $1\frac{1}{2}$ Inch. Cents.	Diam. $1\frac{5}{8}$ to 2 Inch. Cents.	Diam. $2\frac{1}{8}$ to 3 Inch. Cents.
$1\frac{3}{8}$ to 4	9.2	8.8	9.2	10.	4 to 8	12.	12.4	13.2	14.4
4 to 8	8.8	8.4	8.8	9.4	8 to 12	11.	11.4	12.2	13.2
8 to 12	8.4	8.	8.4	8.8	12 to 16	10.	10.4	11.2	12.4
12 to 20	8.	7.6	8.	8.4	16 to 20	9.2	9.6	10.4	11.6

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CASE HARDENED IRON SET SCREWS.

Square Heads, Cup Point.

HEADLESS.

FIG. 2234.

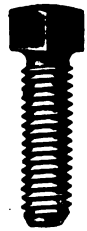

FIG. 2235.

HEADLESS.

FIG. 2236.

Diameter of Screw, Inches.	PRICE PER HUNDRED.											
	¼	5/16	⅜	7/16	½	9/16	⅝	¾	⅞	1	1⅛	1¼
Length under Head to Extreme Point. ¾	2.00	2.20	2.50	2.90	3.40	4.25	5.00	.....	.....	.....	.....	.....
1	2.15	2.35	2.65	3.10	3.60	4.25	5.00	7.00	.....	.....	.....	.....
1¼	2.30	2.50	2.80	3.30	3.80	4.50	5.25	7.00	11.30	.....	.....	.....
1½	2.45	2.65	2.95	3.50	4.00	4.75	5.50	7.50	11.30	14.90	.....	.....
1¾	2.60	2.80	3.10	3.70	4.20	5.00	5.75	8.00	12.00	15.90	19.50	.....
2	2.80	3.00	3.30	3.95	4.45	5.30	6.05	8.60	12.90	17.00	21.10	25.30
2¼	3.05	3.25	3.55	4.25	4.75	5.65	6.40	9.30	13.80	18.40	22.90	27.40
2½	3.30	3.55	3.85	4.60	5.10	6.05	6.80	10.00	14.80	19.80	24.70	29.60
2¾	3.55	3.85	4.20	5.00	5.50	6.50	7.25	10.80	15.90	21.40	26.70	32.00
3	3.80	4.15	4.55	5.45	5.95	7.00	7.75	11.70	17.10	23.00	28.80	34.60
3¼	.....	4.45	4.90	5.90	6.45	7.55	8.35	12.70	18.40	24.70	31.00	37.40
3½	.....	.....	5.25	6.35	6.95	8.10	8.95	13.70	19.70	26.40	33.20	40.20
3¾	.....	.....	.....	6.80	7.45	8.65	9.55	14.70	21.00	28.10	35.40	43.00
4	.....	.....	.....	.....	7.95	9.20	10.15	15.70	22.30	29.80	37.60	45.80
4¼	.....	.....	.....	.....	.....	9.75	10.75	16.70	23.60	31.50	39.80	48.60
4½	.....	.....	.....	.....	.....	.....	11.35	17.70	24.90	33.20	42.00	51.40
4¾	.....	.....	.....	.....	.....	.....	.....	18.70	26.20	34.90	44.20	54.20
5	.....	.....	.....	.....	.....	.....	.....	.....	27.50	36.60	46.40	57.00
Threads to Inch.	20	18	16	14	12	12	11	10	9	8	7	7
Add for each ¼ Inch.	.25	30	.35	.45	.50	.55	.60	1.00	1.30	1.70	2.20	2.80

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SQUARE HEAD CAP SCREWS.

FIG. 2237.

Diameter of Head, Inches.	PRICE PER HUNDRED.												
	3/8	7/16	1/2	9/16	5/8	11/16	3/4	7/8	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8
Length of Head, Inches.	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1 1/8	1 1/4	1 3/8
Diameter of Screw, Inches.	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1 1/8	1 1/4	1 3/8
Length under Head to Extreme Point, Inches.													
3/4	2.40	2.75	3.20	3.80	4.40	5.75	.....	.....	.....	.....	.....	.....	.....
1	2.60	2.95	3.40	4.00	4.70	5.75	7.70	.....	.....	.....	.....	.....	.....
1 1/4	2.75	3.10	3.65	4.20	4.95	6.05	7.70	10.50	.....	.....	.....	.....	.....
1 1/2	2.90	3.30	3.85	4.45	5.25	6.35	8.25	10.50	14.00	.....	.....	.....	.....
1 3/4	3.05	3.50	4.10	4.70	5.55	6.65	8.80	11.10	14.80	18.00	.....	.....	.....
2	3.25	3.70	4.35	4.95	5.90	7.05	9.40	11.80	15.70	19.00	22.50	.....	.....
2 1/4	3.50	4.00	4.65	5.25	6.30	7.55	10.10	12.60	16.70	20.20	24.00	30.00	.....
2 1/2	3.75	4.35	5.00	5.60	6.75	8.15	10.90	13.50	17.80	21.50	25.80	32.00	39.00
2 3/4	4.00	4.70	5.45	6.00	7.25	8.85	11.80	14.60	19.10	23.10	27.90	34.20	41.50
3	4.25	5.05	5.90	6.55	7.80	9.65	12.80	15.90	20.60	25.00	30.50	37.00	45.00
3 1/4	....	5.40	6.35	7.10	8.45	10.55	14.00	17.40	22.40	27.30	33.50	40.50	49.00
3 1/2	.....	.....	6.80	7.65	9.10	11.45	15.20	18.90	24.20	29.60	36.50	44.00	53.00
3 3/4	.....	.....	.....	8.20	9.75	12.35	16.40	20.40	26.00	31.90	39.50	47.50	57.00
4	.....	.....	.....	.....	10.40	13.25	17.60	21.90	27.80	34.20	42.50	51.00	61.00
4 1/4	.....	.....	.....	.....	.....	14.15	18.80	23.40	29.60	36.50	45.50	54.50	65.00
4 1/2	....	.....	.....	.....	.....	.....	20.00	24.90	31.40	38.80	48.50	58.00	69.00
4 3/4	.....	.....	.....	.....	.....	.....	.....	26.40	33.20	41.10	51.50	61.50	73.00
5	....	.....	.....	.....	.....	.....	.....	.....	35.00	43.40	54.50	65.00	77.00
Threads to Inch.	20	18	16	14	12	12	11	10	9	8	7	7	6
Add for Each 1/8 Inch.	.25	.35	.45	55	.65	.90	1.20	1.50	1.80	2.30	3.00	3.50	4.00

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HEXAGON HEAD CAP SCREWS.

THE W. M. PATTISON SUPPLY CO. 821 CLEVELAND

FIG. 2238.

Diameter of Head, Inches.	PRICE PER HUNDRED.											
	7/16	1/2	9/16	5/8	3/4	13/16	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2
Length of Head, Inches.	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1 1/8	1 1/4
Diameter of Screw, Inches.	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1 1/8	1 1/4
Length under Head to Extreme Point, Inches. 3/4	3.00	3.25	3.75	4.40	5.50	7.00	.....	.....	.....	.....	.....	.....
1	3.25	3.50	4.00	4.70	5.70	7.00	9.50	.....	.....	.....	.....	.....
1 1/4	3.50	3.75	4.25	5.00	6.00	7.50	9.50	12.20	.....	.....	.....	.....
1 1/2	3.75	4.00	4.50	5.30	6.30	8.00	10.00	12.20	16.00	.....	.....	.....
1 3/4	4.00	4.25	4.75	5.60	6.60	8.50	10.60	12.80	16.60	21.20	.....	.....
2	4.25	4.60	5.05	5.95	7.00	9.10	11.20	13.40	17.20	22.30	29.00	37.50
2 1/4	4.55	5.00	5.40	6.35	7.50	9.70	11.90	14.10	17.90	23.60	30.50	39.30
2 1/2	4.85	5.40	5.80	6.80	8.00	10.40	12.70	14.90	18.80	25.10	32.30	41.40
2 3/4	5.15	5.80	6.30	7.30	8.60	11.20	13.60	15.90	20.00	26.90	34.40	44.00
3	5.45	6.20	6.80	7.90	9.30	12.10	14.70	17.00	21.80	29.00	37.00	47.50
3 1/4	.....	6.60	7.30	8.50	10.10	13.10	16.00	18.60	23.80	31.40	40.00	51.50
3 1/2	.....	.....	7.80	9.10	10.90	14.10	17.30	20.20	25.80	33.80	43.00	55.50
3 3/4	.....	.....	.....	9.70	11.70	15.10	18.60	21.80	27.80	36.20	46.00	59.50
4	.....	.....	.....	.....	12.50	16.10	19.90	23.40	29.80	38.60	49.00	63.50
4 1/4	.....	.....	.....	.....	.....	17.10	21.20	25.00	31.80	41.00	52.00	67.50
4 1/2	.....	.....	.....	.....	.....	.....	22.50	26.60	33.80	43.40	55.00	71.50
4 3/4	.....	.....	.....	.....	.....	.....	.....	28.20	35.80	45.80	58.00	75.50
5	.....	.....	.....	.....	.....	.....	.....	.....	37.80	48.20	61.00	79.50
Threads to Inch.	20	18	16	14	12	12	11	10	9	8	7	7
Add for each 1/4 Inch.	.30	.40	.50	.60	.80	1.00	1.30	1.60	2.00	2.40	3.00	4.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

ROUND AND FILLISTER HEAD CAP SCREWS.

ROUND HEAD.

FIG. 2239.

FILLISTER HEAD.

FIG. 2240.

Diameter of Head. Inches.	PRICE PER HUNDRED.											
	3/16	1/4	3/8	7/16	9/16	5/8	3/4	13/16	7/8	1	1 1/8	1 1/4
Length of Head. Inches.	1/8	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1
Diameter of Screw. Inches.	1/8	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1
Length under Head to Extreme Point, Inches. 3/4	2.00	2.25	2.50	3.00	3.50	4.00	5.00	.....	.....	.....	.....	.....
1	2.25	2.50	2.75	3.25	3.75	4.25	5.30	6.60	.....	.....	.....	.....
1 1/4	2.50	2.75	3.00	3.50	4.00	4.50	5.60	6.90	9.00	.....	.....	.....
1 1/2	2.75	3.00	3.25	3.75	4.25	4.75	5.90	7.20	9.50	12.00	.....	.....
1 3/4	3.00	3.25	3.50	4.00	4.50	5.00	6.20	7.50	10.00	12.50	15.25	.....
2	3.25	3.50	3.75	4.35	5.00	5.50	6.75	8.00	10.75	13.00	16.00	19.20
2 1/4	3.50	3.75	4.00	4.75	5.50	6.00	7.25	8.50	11.50	13.75	16.75	20.20
2 1/2	3.75	4.00	4.25	5.15	6.00	6.50	7.75	9.00	12.00	14.50	17.50	21.25
2 3/4	.....	4.25	4.50	5.55	6.50	7.00	8.25	9.50	12.75	15.25	18.30	22.40
3	.....	.....	4.75	5.95	7.00	7.50	8.75	10.00	13.50	16.00	19.10	23.60
3 1/4	.....	.....	.....	6.35	7.50	8.00	9.25	10.50	14.25	16.75	20.00	24.85
3 1/2	.....	.....	.....	.....	8.00	8.50	9.75	11.00	15.00	17.50	21.00	26.10
3 3/4	.....	.....	.....	.....	.....	9.00	10.25	11.50	15.75	18.25	22.00	27.35
4	.....	.....	.....	.....	.....	.....	10.75	12.00	16.50	19.00	23.00	28.60
4 1/4	.....	.....	.....	.....	.....	.....	.....	12.50	17.25	19.75	24.00	29.85
4 1/2	.....	.....	.....	.....	.....	.....	.....	.....	18.00	20.50	25.00	31.10
4 3/4	.....	.....	.....	.....	.....	.....	.....	.....	.....	21.25	26.00	32.35
5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27.00	33.60
Threads to inch.	40	24	20	18	16	14	12	12	11	10	9	8
Add for each 1/4 inch.	.25	.25	.25	.40	.50	.50	.50	.50	.75	.75	1.00	1.25

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FLAT AND BUTTON HEAD CAP SCREWS.

FLAT HEAD.

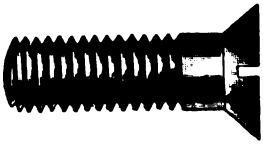

FIG. 2241.

BUTTON HEAD.

FIG. 2242.

Flat Head Cap Screws.

Diameter of Head, Inches.	PRICE PER HUNDRED.									
	1/4	3/8	15/32	5/8	3/4	13/16	7/8	1	1 1/8	1 3/8
Diameter of Screw, Inches.	1/8	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4
Length over All, Inches. 3/4	2.25	2.50	3.10	4.00	5.00	.....	.....	.....	.....	.....
1	2.50	2.75	3.35	4.25	5.30	6.60	.....	.....	.....	.....
1 1/4	2.75	3.00	3.60	4.50	5.60	6 90	9.00	.....	.....	.....
1 1/2	3.00	3.25	3.85	4.75	5.90	7.20	9.50	12.00	.....	.....
1 3/4	3.25	3.50	4.10	5.00	6.20	7.50	10.00	12.50	14.50	.....
2	.....	3.75	4.35	5.50	6.75	8.00	10.75	13.00	15.25	19.20
2 1/4	.....	.....	4.75	6.00	7.25	8.50	11.50	13.75	16.00	20.20
2 1/2	.....	.....	.....	6.50	7.75	9.00	12.00	14.50	16.75	21.25
2 3/4	.....	.....	.....	7.00	8.25	9.50	12.75	15.25	17.50	22.40
3	.....	.....	.....	.....	8.75	10.00	13.50	16.00	18.30	23.60
Threads to Inch.	40	24	20	18	16	14	12	12	11	10
Add for each 1/4 Inch.	.25	.25	.40	.50	.50	.50	.50	.75	1.00	1.25

Button Head Cap Screws.

Diameter of Head, Inches,	PRICE PER HUNDRED.								
	*7/32 Full	5/16	7/16	9/16	5/8	3/4	13/16	15/16	1	1 1/4
Diameter of Body, Inches.	1/8	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4
Length under Head to Extreme Point, Inches. 3/4	2.25	2.50	3.00	3.50	4.00	5.00	.....	.....	.....	.....
1	2.50	2.75	3.25	3.75	4.25	5.30	6.60	.....	.....	.....
1 1/4	2.75	3.00	3.50	4.00	4.50	5.60	6.90	9.00	.....	.....
1 1/2	3.00	3.25	3.75	4.25	4.75	5.90	7.20	9.50	12.00	.....
1 3/4	3.25	3.50	4.00	4.50	5.00	6.20	7.50	10.00	12.50	18.20
2	.....	3.75	4.35	5.00	5.50	6.75	8.00	10.75	13.00	19.20
2 1/4	.....	.....	4.75	5.50	6.00	7.25	8.50	11.50	13.75	20.20
2 1/2	.....	.....	.....	6.00	6.50	7.75	9.00	12.00	14.50	21.25
2 3/4	.....	.....	.....	.....	7.00	8.25	9.50	12.75	15.25	22.40
3	.....	.....	.....	.....	.....	8.75	10.00	13.50	16.00	23.60
Threads to Inch.	40	24	20	18	16	14	12	12	11	10
Add for each 1/4 Inch.	.25	.25	.40	.50	.50	.50	.50	.75	.75	1.15

*No. 4 Wire.

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COLLAR SCREWS.

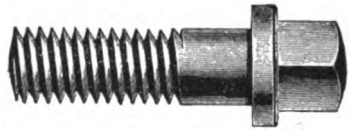

FIG. 2243.

Diameter of Collar, Inches.	PRICE PER HUNDRED.									
	¼	11/32	7/16	½	5/8	11/16	13/16	15/16	1	1¼
Diameter of Screw, Inches.	⅛	3/16	¼	5/16	⅜	7/16	½	9/16	⅝	¾
Length under Head to Extreme Point, Inches. ¾	2.50	2.80	3.10	3.75	4.40	5.00	6.25	.....	.....	.....
1	2.80	3.10	3.40	4.05	4.70	5.30	6.60	8.25	.....	.....
1¼	3.10	3.40	3.70	4.35	5.00	5.60	7.00	8.60	11.25	.....
1½	3.40	3.70	4.00	4.70	5.30	5.95	7.40	9.00	11.90	15.00
1¾	3.70	4.05	4.35	5.05	5.65	6.35	7.80	9.45	12.60	15.60
2	...	4.40	4.70	5.45	6.25	6.85	8.40	10.00	13.35	16.25
2¼	.....	.....	5.05	5.95	6.85	7.40	9.00	10.60	14.15	17.10
2½	.....	.....	5.45	6.45	7.55	8.05	9.60	11.25	15.00	18.00
2¾	.....	.....	.....	6.95	8.20	8.75	10.30	11.90	15.90	19.00
3	.....	.....	.....	7.50	8.85	9.50	11.00	12.60	16.85	20.00
3¼	.....	.....	.....	.....	9.50	10.30	11.80	13.40	17.95	21.20
3½	.....	.....	.....	.....	10.20	11.10	12.60	14.30	19.10	22.60
3¾	.....	.....	.....	.....	.....	11.95	13.50	15.30	20.40	24.20
4	.....	.....	.....	.....	.....	12.80	14.40	16.30	21.70	25.80
4¼	.....	.....	.....	.....	.....	.....	15.40	17.50	23.20	27.70
4½	.....	.....	.....	.....	.....	.....	16.40	18.70	24.70	29.60
4¾	.....	.....	.....	.....	.....	.....	.....	20.10	26.50	31.80
5	.....	.....	.....	.....	.....	.....	.....	21.50	28.30	34.00
Threads to Inch.	40	24	20	18	16	14	12	12	11	10
Add for Each ¼ Inch.	.30	.40	.50	.60	.80	1.00	1.30	1.60	2.00	2.40

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DROP FORGED THUMB SCREWS.

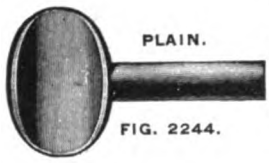

FIG. 2244.

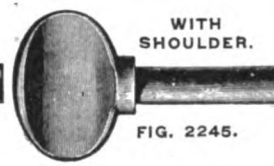

FIG. 2245.

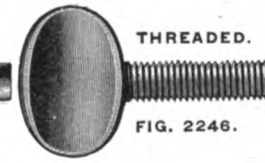

FIG. 2246.

Length Under Head, Inches.	BLANK: PRICE PER HUNDRED. NUMBER AND DIAMETER.												
	No. 0 1/8	No. 1 3/16	No. 2 1/4	No. 3 5/16	No. 4 3/8	No. 5 7/16	No. 6 1/2	No. 7 9/16	No. 8 5/8	No. 9 11/16	No. 10 3/4	No. 11 13/16	No. 12 7/8
1/2	1.60	1.80	2.05	2.40	2.95	.....	.....	.....	.....	.....	.....	.....	.....
3/4	1.70	1.90	2.15	2.50	3.05	3.80	4.75	5.85	.....	.....	.....	.....	.....
7/8	1.80	2.00	2.25	2.60	3.20	4.00	5.00	6.20	.....	.....	.....	.....	.....
1	1.90	2.10	2.35	2.75	3.40	4.25	5.30	6.55	8.00	9.65	11.55	.....	.....
1 1/4	2.00	2.20	2.45	2.90	3.60	4.50	5.60	6.90	8.40	10.15	12.20	.....	.....
1 1/2	2.10	2.30	2.55	3.10	3.80	4.75	5.95	7.30	8.90	10.75	12.90	.....	.....
1 3/4	.....	2.40	2.70	3.30	4.05	5.05	6.30	7.75	9.40	11.35	13.60	.....	.....
2	.....	2.50	2.85	3.50	4.30	5.35	6.65	8.20	9.95	11.95	14.30	16.25	19.50
2 1/4	.....	.....	3.05	3.70	4.60	5.70	7.05	8.65	10.50	12.60	15.05	17.00	20.25
2 1/2	.....	.....	3.25	3.95	4.90	6.05	7.45	9.15	11.05	13.25	15.80	17.75	21.00
2 3/4	.....	.....	3.45	4.20	5.20	6.40	7.90	9.65	11.65	13.90	16.55	18.50	21.75
3	.....	.....	3.70	4.45	5.50	6.75	8.35	10.15	12.25	14.60	17.35	19.40	23.50
3 1/2	.....	.....	.....	5.00	6.15	7.55	9.25	11.25	13.50	16.10	19.05	22.00	26.35
4	.....	.....	.....	5.60	6.90	8.45	10.25	12.40	14.85	17.60	20.75	24.55	29.15
4 1/2	.....	.....	.....	.....	7.70	9.35	11.35	13.70	16.35	19.30	22.60	27.35	32.20
5	.....	.....	.....	.....	8.50	10.35	12.60	15.15	18.00	21.20	24.80	30.75	35.90
5 1/2	.....	.....	.....	.....	9.40	11.45	13.90	16.65	19.80	23.30	27.15	34.40	39.80
6	.....	.....	.....	.....	.....	.....	15.20	18.30	21.80	25.70	30.00	38.70	44.50

. The above list applies to both shoulder and Set Pattern Thumb Screw Blanks.
☞ Threaded Thumb Screws Double Above List.

Malleable Iron Thumb Screws, Threaded.

Length Under Head, Inches.	Diameter, Inches. PRICE PER HUNDRED.								
	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4
1/2	1.30	1.30	1.60	2.30	2.80	.....	.....	.....	.....
3/4	1.60	1.60	2.00	2.60	3.00	.....	.....	.....	.....
1	1.90	1.90	2.40	3.00	3.40	4.40	5.60	.....	.....
1 1/4	.....	2.20	2.80	3.40	3.80	5.00	6.40	.....	.....
1 1/2	.....	2.50	3.20	3.80	4.20	5.60	7.20	.....	.....
1 3/4	.....	.....	3.60	4.20	4.60	6.20	8.00	.....	.....
2	.....	.....	4.00	4.60	5.00	6.80	8.80	12.00	16.50
2 1/4	.....	.....	4.50	5.10	5.50	7.40	9.60	13.00	18.00
2 1/2	.....	.....	5.00	5.70	6.10	8.00	10.40	14.00	19.00
2 3/4	.....	.....	.....	6.30	6.70	8.60	11.20	15.00	20.00
3	.....	.....	.....	7.00	7.30	9.20	12.00	16.00	21.00
3 1/2	.....	.....	.....	.....	7.90	10.40	13.20	18.00	23.50
4	.....	.....	.....	.....	.....	.....	14.80	20.00	26.00
4 1/2	.....	.....	.....	.....	.....	.....	.....	22.50	28.50
5	.....	.....	.....	.....	.....	.....	.....	25.00	30.50
Price, Blanks, Per Pound.	.25	.15	.12	.10	.10	.10	.10	.10	.10

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 826

IRON MACHINE SCREWS.

Round, Flat and Fillister Heads.

FLAT HEAD.

FIG. 2247.

ROUND HEAD.

FIG. 2248.

FILLISTER HEAD.

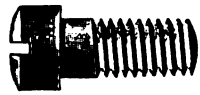

FIG. 2249.

Number.	PRICE, PER GROSS.													
Length, Inches.	2	3	4	5	6	8	10	12	14	16	18	20	24	30
3/16	.25	.25	.25	.29	.29	.....	....	.....	.....	.....	.....	.....	.....	.....
1/4	.25	.25	.25	.29	.29	.35	.43	.....	.....	....	.....	.....	.....	.....
5/16	.27	.27	.27	.31	.31	.38	.46	.....	.....	.....	.....	.....	.....	.....
3/8	.27	.27	.27	.31	.31	.38	.46	.59	.74	.95	.....	.....	.....	.....
7/16	.29	.29	.29	.33	.33	.41	.49	.59	.74	.95	.....	.....	.....	.....
1/2	.29	.29	.29	.33	.33	.41	.49	.59	.74	.95	1.10	1.25	1.70	.....
9/16	.33	.33	.33	.36	.36	.46	.54	.66	.81	1.00	1.15	1.35	1.90	.....
5/8	.....	.33	.33	.36	.36	.46	.54	.66	.81	1.00	1.15	1.35	1.90	.....
3/4	.....	.....	.37	.42	.42	.52	.63	.74	.88	1.10	1.30	1.55	2.00	.....
7/8	.....	.....	.....	.48	.48	.60	.72	.85	1.00	1.20	1.40	1.65	2.20	.....
1	.....	.....	.....	.....	.55	.70	.85	.97	1.15	1.35	1.55	1.80	2.55	4.50
1 1/8	.....	.....	.....	.....	.....	.85	1.05	1.25	1.45	1.65	1.85	2.10	3.00	5.25
1 1/4	.....	.....	.....	.....	.....	.85	1.05	1.25	1.45	1.65	1.85	2.10	3.00	5.25
1 3/8	.....	.....	.....	.....	.....	.....	1.35	1.60	1.80	2.00	2.20	2.50	3.60	6.00
1 1/2	.....	.....	.....	.....	.....	.....	1.35	1.60	1.80	2.00	2.20	2.50	3.60	6.00
1 3/4	.....	.....	.....	.....	.....	.....	.....	1.80	2.05	2.40	2.55	2.90	4.10	6.65
2	.....	.....	.....	.....	.....	.....	.....	.....	2.30	2.75	2.90	3.35	4.65	7.35
2 1/4	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.10	3.25	3.70	5.00	8.00
2 1/2	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	3.65	4.15	5.75	8.90
2 3/4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.75	6.45	9.85
3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7.45	11.00
Threads.	56	48	32 and 36	32 and 36	30 and 32	30 and 32	24, 30 and 32	20 and 24	20 and 24	16, 18 and 20	16 and 18	16 and 18	16	14
Diameter about, Inches.	5/64	3/32	7/64	1/8	9/64 Scant	5/32	3/16	7/32	1/4	17/64	9/32	5/16	3/8	29/64

Any size of Screw, not listed above, shall take the list price of the next larger or longer length.

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THE W. M. PATTISON SUPPLY CO. 827 CLEVELAND

BRASS MACHINE SCREWS.

Round, Flat and Fillister Heads.

FLAT HEAD.

FIG. 2250.

ROUND HEAD.

FIG. 2251.

FILLISTER HEAD.

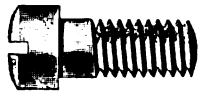

FIG. 2252.

Number.	PRICE, PER GROSS.													
	2	3	4	5	6	8	10	12	14	16	18	20	24	30
Length, Inches.														
3/16	.32	.32	.32	.40	.40	.....	.....	.....	.....	.....	.....	.....	.....	.....
1/4	.32	.32	.32	.40	.40	.58	.86	.....	.....	.....	.....	.....	.....	.....
5/16	.35	.35	.35	.43	.43	.62	.86	.....	.....	.....	.....	.....	.....	.....
3/8	.35	.35	.35	.43	.43	.62	.86	1.00	1.55	2.00	.....	.....	.....	.....
7/16	.39	.39	.39	.48	.48	.68	.95	1.15	1.70	2.10	.....	.....	.....	.....
1/2	.39	.39	.39	.48	.48	.68	.95	1.15	1.70	2.10	3.00	3.60	6.00	.....
9/16	.48	.48	.48	.57	.57	.77	1.05	1.30	1.90	2.35	3.25	3.90	6.30	.....
5/8	.....	.48	.48	.57	.57	.77	1.05	1.30	1.90	2.35	3.25	3.90	6.30	.....
3/4	.....	....	.60	.70	.70	.90	1.15	1.50	2.10	2.60	3.50	4.30	6.70	.....
7/8	.....	....	.....	.80	.80	1.05	1.35	1.80	2.30	2.90	3.75	4.70	7.40	.....
1	.....	.....	....	.....	.90	1.20	1.55	2.10	2.60	3.20	4.00	5.20	8.50	15.75
1 1/8	.....	.....	.....	.....	.....	1.50	1.90	2.55	3.10	3.70	4.50	6.00	9.90	18.75
1 1/4	.....	.....	.....	.....	.....	1.50	1.90	2.55	3.10	3.70	4.50	6.00	9.90	18.75
1 3/8	.....	.....	.....	.....	.....	.....	2.50	3.00	3.60	4.30	5.00	6.80	11.55	22.50
1 1/2	.....	.....	.....	.....	.....	.....	2.50	3.00	3.60	4.30	5.00	6.80	11.55	22.50
1 3/4	.....	.....	.....	.....	.....	.....	.....	3.50	4.15	5.00	5.50	7.50	12.70	24.25
2	.....	.....	.....	.....	.....	.....	.....	.....	4.90	5.75	6.50	8.25	13.55	26.00
2 1/4	.....	.....	.....	.....	.....	.....	.....	..	.....	6.65	7.50	9.25	14.95	28.00
2 1/2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9.00	10.50	15.50	30.50
2 3/4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12.00	17.00	33.00
3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19.00	36.00
Threads.	56	48	32 and 36	32 and 36	30 and 32	30 and 32	24, 30 and 32	20 and 24	20 and 24	16, 18 and 20	16 and 18	16 and 18	16	14
Diameter about, Inches.	5/64	3/32	7/64	1/8	9/64 Scant	5/32	3/16	7/32	1/4	17/64	9/32	5/16	3/8	29/64

Any size of Screw, not listed above, shall take the list price of the next larger or longer length.

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EXPANSION BOLTS AND SLEEVES.

DIAMOND. LITTLE GIANT.

FIG. 2253.

FIG. 2254.

Diamond Expansion Screw Sleeves with Wood Screws.

Length, Inches.	PRICE PER HUNDRED, WITH ROUND OR COUNTERSUNK HEAD IRON SCREWS. DIAMETER, INCHES.					
	1/8 or No. 5.	3/16 or No. 10.	1/4 or No. 14.	5/16 or No. 18.	3/8 or No. 24.	1/2 or No. 30.
1	6.90	7.90	.....	.....	.....	.....
1½	7.00	8.00	8.95	9.80	.....	.....
2	7.10	8.10	9.00	9.90	.....	.....
2½	7.20	8.20	9.05	10.00	12.00	18.80
3	7.30	8.30	9.10	10.10	12.50	19.40
Sleeves only.	6.50	7.50	8.50	9.00	11.50	18.00

For Brass Screws, add 30 per cent. For Nickel Plated Iron Screws, add 10 per cent.

For Nickel Plated Brass Screws, add 30 per cent.

Diamond Expansion Screw Sleeves for Lag Screws.

Diameter of Screw.....inches	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1¼
Price .....per hundred	7.50	8.50	9.00	11.50	18.00	22.00	30.00	41.50	51.00	64.00
Long Standard { Length...inches	1⅛	1⅛	2¼	2¾	3½	3½	3½	5	5	8
Long Standard { Diameter..inches	3/8	½	3/4	7/8	1	1⅛	1⅜	1½	1½	1⅞
Short Standard { Length...inches	1⅛	1⅛	1⅛	2	2	2	3½	5	5	8
Short Standard { Diameter..inches	3/8	½	⅝	¾	7/8	1	1⅜	1½	1½	1⅞
Threads.....per inch	13	11	9	7	5	5	4½	4	4	3

Little Giant Expansion Screw Sleeves.

Diameter of Screw.....inches	3/8	½	5/8	¾	No. *10 or 12	14 or 16	18 or 20
Price.....per dozen	.94	1.26	1.60	1.90	.68	.78	.88
Length.....inches	1¾	2	2¼	2½	1⅛	1¼	1½
Size Drill to use.....inches	½	11/16	13/16	7/8	5/16	11/32	7/16

Little Giant Special Expansion Screw Sleeves for Marble, Etc.

Diameter, Wire Number..	10 or 12	14 or 16	18 or 20
Price.....per dozen	.58	.68	.75
Length.....inches	¾	¾	¾
Size Drill to use.....inches	5/16	11/32	7/16

* Wire Number: For Wood Screws.

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THE W. M. PATTISON SUPPLY CO. 829 CLEVELAND

STANDARD STEEL TAPER PINS.

Taper One-Quarter Inch to the Foot.

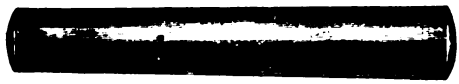

FIG. 2255.

Number.	PRICE, PER HUNDRED.										
	0	1	2	3	4	5	6	7	8	9	10
Diameter at Large End, Inches.	.156	.172	.193	.219	.250	.289	.341	.409	.492	.591	.706
Approximate Fractional Sizes, Inches.	$\frac{5}{32}$	$\frac{11}{64}$	$\frac{3}{16}$	$\frac{7}{32}$	$\frac{1}{4}$	$\frac{19}{64}$	$\frac{11}{32}$	$\frac{13}{32}$	$\frac{1}{2}$	$\frac{19}{32}$	$\frac{23}{32}$
Longest Limit of Length, Inches.	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$3\frac{1}{4}$	$3\frac{3}{4}$	$4\frac{1}{2}$	$5\frac{1}{4}$	6
From $\frac{3}{4}$	1.80	2.00	2.10	2.30	2.50	2.75	3.00	.....	.....	.....	.....
1	2.05	2.25	2.35	2.55	2.75	3.00	3.25	3.75	.....	.....	.....
$1\frac{1}{4}$	.....	2.50	2.60	2.80	3.00	3.25	3.50	4.00	4.65	.....	.....
$1\frac{1}{2}$	.....	.....	2.85	3.05	3.25	3.50	3.75	4.25	5.00	7.00	9.00
$1\frac{3}{4}$	.....	.....	.....	3.30	3.50	3.75	4.00	4.50	5.40	7.50	9.50
2	.....	.....	.....	.....	3.75	4.05	4.35	4.75	5.80	8.00	10.00
$2\frac{1}{4}$	.....	.....	.....	.....	.....	4.40	4.75	5.25	6.25	8.60	10.75
$2\frac{1}{2}$	.....	.....	.....	.....	.....	.....	5.20	5.75	6.75	9.20	11.50
$2\frac{3}{4}$	.....	.....	.....	.....	.....	.....	5.70	6.25	7.25	9.80	12.25
3	.....	.....	.....	.....	.....	.....	6.25	6.75	7.80	10.50	13.25
$3\frac{1}{4}$	.....	.....	.....	.....	.....	.....	6.75	7.25	8.40	11.20	14.25
$3\frac{1}{2}$	.....	.....	....	.....	.....	.....	.....	7.75	9.00	11.90	15.25
$3\frac{3}{4}$	.....	.....	....	.....	.....	.....	.....	8.25	9.60	12.60	16.25
4	.....	.....	.....	.....	.....	.....	.....	.....	10.20	13.30	17.25
$4\frac{1}{4}$	.....	....	....	.....	.....	.....	.....	.....	10.80	14.00	18.25
$4\frac{1}{2}$	.....	.....	....	.....	.....	.....	.....	.....	11.40	14.70	19.25
$4\frac{3}{4}$	.....	.....	.....	.....	.....	.....	.....	.....	.....	15.40	20.25
5	.....	....	.....	.....	.....	.....	.....	.....	.....	16.10	21.25
$5\frac{1}{4}$	.....	.....	.....	.....	.....	.....	.....	.....	.....	16.80	22.25
$5\frac{1}{2}$	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	23.25
$5\frac{3}{4}$	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24.25
6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	25.25

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THE W. M. PATTISON SUPPLY CO. CLEVELAND O.

SPRING COTTERS.

FIG. 2256.

Wire Gauge.	PRICE PER THOUSAND.														
	13	12	11	10	9	8	7	6	5	4	1	...	...	...	...
Diam. Inches.	3/32	7/64	1/8	9/64	5/32	11/64	3/16	13/64	7/32	1/4	5/16	3/8	7/16	1/2	5/8
Length, Inches.															
1/2	3.75	4.25	4.75	5.00	5.50	6.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
5/8	4.40	4.90	5.50	5.80	6.50	7.20	7.50	8.00	.....	.....	.....	.....	.....	.....	.....
3/4	4.40	4.90	5.50	5.80	6.50	7.20	7.50	8.00	.....	.....	.....	.....	.....	.....	.....
7/8	5.00	5.50	6.25	6.60	7.50	8.40	8.80	9.50	12.00	15.00	20.50	.....	.....	.....	.....
1	5.00	5.50	6.25	6.60	7.50	8.40	8.80	9.50	12.00	15.00	20.50	.....	.....	.....	.....
1 1/8	5.60	6.10	7.00	7.40	8.50	9.60	10.10	11.00	13.50	16.50	22.75	.....	.....	.....	.....
1 1/4	5.60	6.10	7.00	7.40	8.50	9.60	10.10	11.00	13.50	16.50	22.75	.....	.....	.....	.....
1 3/8	6.20	6.70	7.75	8.20	9.50	10.80	11.40	12.50	15.00	18.00	25.00	28.50	.....	.....	.....
1 1/2	6.80	7.30	8.50	9.00	10.50	12.00	12.70	14.00	16.50	20.00	27.25	30.75	39.00	.....	.....
2	7.40	7.90	9.25	10.00	11.50	13.20	14.00	15.50	18.00	22.00	29.50	33.50	43.50	52.50	.....
2 1/2	.....	.....	10.00	11.00	12.50	14.40	15.30	17.00	19.50	24.00	31.75	36.00	47.25	57.75	.....
2 3/4	.....	.....	10.75	12.00	13.50	15.60	16.80	18.50	21.00	26.25	34.00	38.75	51.00	63.00	.....
2 3/4	.....	.....	.....	.....	.....	.....	18.30	20.50	23.50	28.00	36.75	40.50	54.75	68.00	.....
3	.....	.....	.....	.....	.....	.....	19.80	22.50	25.00	30.00	39.75	43.25	58.50	73.50	112.50
3 1/4	.....	.....	.....	.....	.....	.....	.....	.....	.....	32.00	42.75	46.00	62.25	78.75	118.50
3 1/2	.....	.....	.....	.....	.....	.....	.....	.....	.....	34.00	45.00	48.75	66.00	84.00	124.50
3 3/4	.....	.....	.....	.....	.....	.....	.....	.....	.....	36.50	47.25	51.75	69.75	89.25	130.50
4	.....	.....	.....	.....	.....	.....	.....	.....	.....	39.00	49.50	54.75	73.50	94.50	136.50
5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	67.50	88.50	115.50	160.50
6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	136.00	184.50

FLAT SPRING KEYS.

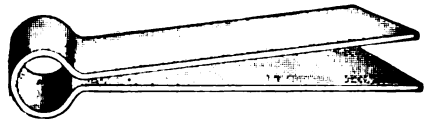

FIG. 2257.

Length, Inches.	PRICE PER THOUSAND.									
	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2
Width, Inches.										
1/2	14.00	15.75	17.50	19.25	21.00	22.75	24.50	26.25	.....	.....
5/8	21.00	22.75	24.50	26.25	28.00	29.75	31.50	33.25	.....	.....
3/4	.....	.....	26.25	28.00	30.75	33.25	36.00	38.50	41.25	43.75
7/8	.....	.....	.....	34.25	36.75	39.25	42.00	44.75	47.25	50.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 830

SPRING COTTERS.

FIG. 2256.

Length, Inches.	PRICE, PER THOUSAND.														
Wire Guage.	13	12	11	10	9	8	7	6	5	4	1	.....	.....	.....	.....
Diameter, Inches.	3/32	7/64	1/8	9/64	5/32	11/64	3/16	13/64	7/32	1/4	5/16	3/8	7/16	1/2	5/8
1/2	3.50	4.00	5.00	6.00	7.00	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
9/16	4.15	4.75	5.85	7.00	8.15	9.30	10.60	12.00	.....	.....	.....	.....	.....	.....	.....
1	4.80	5.50	6.70	8.00	9.30	10.60	12.20	14.00	16.00	20.00	29.00	.....	.....	.....	.....
1 1/4	5.45	6.25	7.55	9.00	10.45	11.90	13.80	16.00	18.50	23.50	33.50	.....	.....	.....	.....
1 1/2	6.10	7.00	8.40	10.00	11.60	13.20	15.40	18.00	21.00	27.00	38.00	60.00	.....	.....	.....
1 3/4	6.75	7.75	9.25	11.00	12.75	14.50	17.00	20.00	23.50	30.50	42.50	66.00	80.00	.....	.....
2	7.40	8.50	10.10	12.00	13.90	15.80	18.60	22.00	26.00	34.00	47.00	72.00	88.50	110.00	.....
2 1/4	.....	.....	10.95	13.00	15.05	17.10	20.20	24.00	28.50	37.50	51.50	78.00	97.00	121.00	.....
2 1/2	.....	.....	11.80	14.00	16.20	18.40	21.80	26.00	31.00	41.00	56.00	84.00	105.50	132.00	.....
2 3/4	.....	.....	.....	.....	.....	.....	23.40	28.00	33.50	44.50	60.50	90.00	114.00	143.00	.....
3	.....	.....	.....	.....	.....	.....	25.00	30.00	36.00	48.00	65.00	96.00	122.50	154.00	320.00
3 1/4	.....	.....	.....	.....	.....	.....	.....	.....	.....	51.50	69.50	102.00	131.00	165.00	336.00
3 1/2	.....	.....	.....	.....	.....	.....	.....	.....	.....	55.00	74.00	108.00	139.50	176.00	352.00
3 3/4	.....	.....	.....	.....	.....	.....	.....	.....	.....	58 50	78.50	114.00	148 00	187.00	368.00
4	.....	.....	.....	.....	.....	.....	.....	.....	.....	62.00	83.00	120.00	156.50	198.00	384.00
5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	190.50	242.00	448.00
6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	286.00	512 00

FLAT SPRING KEYS.

FIG. 2557.

Width, Inches.	PRICE, PER THOUSAND.									
Length, Inches.	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2
[illegible]	30.00	34.00	38.00	42.00	46.00	50.00	54.00	58.00	.....	.....
[illegible]	40.00	44.50	49.00	53.50	58.00	62.50	67.00	71.50	.....	.....
[illegible]	.....	.....	60.00	65.00	70.00	75.00	80.00	85.00	90.00	95.00
[illegible]	.....	.....	.....	80.00	85.50	91.00	96.50	102.00	107.50	113.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEEL WIRE NAILS AND SPIKES IN KEGS.

FIG. 2258.

Common, Fence, Shingle, Tobacco and Flooring Nails and Common Brads.

Size..... D	20 to 60	10 to 16	8 and 9	6 and 7	4 and 5	3	2
Price, Extra.....100 lbs.	Base	.05	.10	.20	.30	.45	.70

Barbed Common and Barbed Car Nails, 15 cents Extra, 100 pounds over Common Nails.

Casing and Smooth Box Nails.

Size..... D	10 and Larger	8 and 9	6 and 7	4 and 5	3	2
Price, Extra...100 lbs.	.15	.25	.35	.50	.70	1.00

Barbed Box Nails, 15 cents Extra 100 pounds over Smooth Box Nails.

Smooth Finishing Nails.

Size..... D	10 and Larger	8 and 9	6 and 7	4 and 5	3	2
Price, Extra...100 lbs.	.25	.35	.45	.65	.85	1.15

Lining Nails.

Size..... inches	$\frac{3}{4}$	$\frac{7}{8}$	1
Price, Extra.....100 lbs.	1.20	1.00	.80

Slating Nails.

Size..... D	2	3	4	5	6
Price, Extra.....100 lbs.	.80	.60	.40	.40	.30

Fine Nails.

Size..... D	2	3, $1\frac{1}{8}$ x 15	3 Extra fine $1\frac{1}{8}$x16
Price, Extra.....100 lbs.	1.00	.50	.65

Barrel Nails.

Size..... inches	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$
Price, Extra....100 lbs.	1.00	.85	.70	.60	.50	.40	.30

Barbed Roofing Nails.

Size.....inches	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$ and $1\frac{3}{4}$	2
Price, Extra.....100 lbs.	.75	.65	.60	.60	.55	.45	.35

Clinch Nails, Annealed or Bright.

Size..... D	2	3	4 and 5	6 and 7	8 and 9	10 to 20
Price, Extra.....100 lbs.	1.05	.85	.65	.55	.45	.35

Hinge Nails, Annealed or Bright.

Size..... D	4	6	8	10 and Larger
Price, Extra.....100 lbs.	.80	.70	.60	.50

Boat Nails.

Boat Nails, 25 cents Extra, 100 pounds over Hinge Nails.

Spikes.

Size..... inches	All Sizes to 9	10 and Larger
Price, Extra.....100 lbs.	.10	.25

Barbed Dowel Pins.

Size.....inches	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$
Price, Extra.....100 lbs.	1.25	1.00	.85	.70	.60	.60	.60	.60

Annealed Nails, except Clinch and Hinge, 15 cents Extra, 100 pounds.
Blued Nails, 25 cents Extra, 100 pounds.

Lengths of Various Weights of D Nails.

Size..... D	2	3	4	5	6	7	8	9
Length.....inches	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{3}{4}$
Size..... D	10	12	16	20	30	40	50	60
Length.....inches	3	$3\frac{1}{4}$	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6

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MISCELLANEOUS STEEL WIRE NAILS.

Applying to all Nails except Standard Nails in Kegs. Price stated are per pound for 1, 5 and 10 pound packages.

Size, Inches.	Number.	Price, Per Pound.	Size, Inches.	Number.	Price, Per Pound.	Size, Inches.	Number.	Price, Per Pound.
	19	1.00		8	.33		4 to 13	.28
	20	1.25		9	.33		14	.29
¼	21	1.55		10	.33	1¾	15	.30
	22	1.90		11	.33		16	.32
	18	.80		12	.33		17	.38
	19	.90		13	.34		3 to 10	.27
⅜	20	1.00	⅞	14	.35		11	.28
	21	1.25		15	.36		12	.28
	22	1.55		16	.39	2	13	.28
	14	.55		17	.43		14	.29
	15	.55		18	.45		15	.30
	16	.55		19	.56		16	.35
	17	.60		20	.67		3 to 10	.27
	18	.65		7 to 12	.30		11	.28
½	19	.75		13	.31	2¼	12	.28
	20	.85		14	.32		13	.28
	21	1.00		15	.33		14	.29
	22	1.25	1	16	.36		3 to 10	.26
	12	.43		17	.40	2½	11	.27
	13	.43		18	.43		12	.27
	14	.43		19	.53		13	.28
	15	.45		20	.64		3 to 10	.26
	16	.50		7 to 12	.30	2¾	11	.27
	17	.52		13	.31		12	.27
⅝	18	.58		14	.32		3 to 10	.25
	19	.65	1⅛	15	.32	3	11	.26
	20	.75		16	.35		12	.27
	21	.85		17	.40		3 to 10	.25
	22	1.10		18	.43	3¼	11	.26
	10	.36		19	.53		12	.27
	11	.36		6 to 12	.29	3½	3 to 10	.25
	12	.36		13	.30		11	.26
	13	.38	1¼ and 1⅜	14	.31	4	3 to 10	.25
	14	.38		15	.32		11	.26
¾	15	.42		16	.34	.....	.....	.....
	16	.43		17	.39	.....	.....	.....
	17	.46		4 to 13	.29	.....	.....	.....
	18	.52		14	.30	.....	.....	.....
	19	.60	1½ and 1⅝	15	.31	.....	.....	.....
	20	.70		16	.33	.....	.....	.....
	21	.85		17	.38	.....	.....	.....

List Extras, Subject to Discount.

Add to list 4 cents per pound for ⅛-pound paper boxes.
Add to list 8 cents per pound for ¼-pound paper boxes.
Add to list 2 cents per pound for barbing.
Add to list 2 cents per pound for annealing.
Add to list 2 cents for Cone Heads, Special Heads and Headless.
Add to list 2 cents for Needle Points and Special Points.
For Nails combining several specialties, add as above for each.
For sizes not appearing on the list, use the list prices for the desired gauge in the nearest shorter length.
Nails heavier than listed, at special net prices, according to quantity.

Rebates from List Prices.

Rebate for 25 and 50-pound boxes, 1 cent per pound.
Rebate for Nails in 100-pound kegs, 2 cents per pound.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 833

WROUGHT SPIKES.

RAILROAD SPIKE.

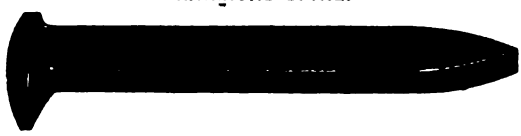

FIG. 2259.

STREET RAILWAY SPIKE.

FIG. 2260.

BOAT SPIKE.

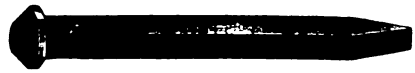

FIG. 2261.

Railroad Spikes.

Square.....inches	$\frac{9}{16}$	$\frac{1}{2}$	$\frac{7}{16}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{5}{16}$	$\frac{5}{16}$
Length..... inches	$4\frac{1}{2}$, 5, $5\frac{1}{2}$	4, $4\frac{1}{2}$, 5	$3\frac{1}{2}$, 4, $4\frac{1}{2}$	3, $3\frac{1}{2}$, 4, $4\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$, 3, $3\frac{1}{2}$	2
Price, Extra.....100 lbs.	Base	.05	.10	.20	.30	.45	.70

Reverse Points, $\frac{1}{4}$ cent per pound extra; smallest, $3\frac{1}{2} \times \frac{5}{8}$.

Street Railway Spikes.

Square.....inches	$\frac{5}{8}$	$\frac{9}{16}$	$\frac{1}{2}$	$\frac{7}{16}$	$\frac{3}{8}$	$\frac{5}{16}$	$\frac{1}{4}$
Price, Extra..... 100 pounds	Base	Base	Base	.10	.25	.50	.90

Boat Spikes.

Square.....inches	$\frac{3}{4}$	$\frac{5}{8}$	$\frac{1}{2}$	$\frac{7}{16}$	$\frac{3}{8}$	$\frac{5}{16}$	$\frac{1}{4}$	$\frac{1}{4}$
Length..... inches	12 to 24	8 to 16	6 to 16	6 to 12	4 to 12	4 to 8	4 to 8	3 to $3\frac{1}{2}$
Price, Extra.....100 lbs.	.05	.05	.05	.10	.20	.35	.65	.90

$3\frac{1}{2}$ and $\frac{5}{16}$, shorter than 4 inch, $\frac{1}{4}$ cent per pound extra.

Weights, Etc., of Railroad Spikes.

Size Under Head, Inches.	Average Number Per Keg of 200 Pounds.	TIES TWO FEET BETWEEN CENTERS. 4 SPIKES PER TIE. Spikes Per Mile. Pounds.	Kegs.	Rail Used Weight Per Yard, Pounds.
$5\frac{1}{2} \times \frac{9}{16}$	360	5800	29	45 to 70
$5 \times \frac{9}{16}$	400	5170	$25\frac{7}{8}$	40 to 56
$4\frac{1}{2} \times \frac{1}{2}$	530	3900	$19\frac{1}{2}$	35 to 40
$4\frac{1}{2} \times \frac{7}{16}$	680	3110	$15\frac{1}{2}$	28 to 30
$4 \times \frac{1}{2}$	600	3520	$17\frac{3}{5}$	30 to 35
$4 \times \frac{7}{16}$	840	2560	$12\frac{4}{5}$	28 to 30
$3\frac{1}{2} \times \frac{1}{2}$	680	3110	$15\frac{3}{5}$	30 to 35
$3\frac{1}{2} \times \frac{7}{16}$	900	2530	$11\frac{3}{4}$	20 to 28
$3\frac{1}{2} \times \frac{3}{8}$	1180	1780	$9\frac{1}{4}$	16 to 20
$3 \times \frac{3}{8}$	1370	1540	$7\frac{3}{4}$	16 to 20
$2\frac{1}{2} \times \frac{3}{8}$	1600	1320	$6\frac{3}{5}$	12
$2\frac{1}{2} \times \frac{5}{16}$	2160	1000	5	8

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TACKS AND STAPLES.

CUT TACKS. COPPER TACKS. DOUBLE POINTED TACKS. BLIND STAPLES. ELECTRICIAN'S STAPLES.

FIG. 2262. FIG. 2263. FIG. 2264. FIG. 2265. FIG. 2266.

Clout, Trunk and Finishing Nails.

BULK AND ONE POUND PAPERS.

Length.....inches	⅜	3½–8	¼	4½–8	⅝	5½–8	¾	⅞	1&Longer
Price, Blued ...per pound	.58	.48	.39	.34	.32	.29	.27	.24	.23
Price, Tinned...per pound	.70	.60	.50	.45	.43	.40	.38	.35	.34

For ½ pound papers, where prices are not given, add 4 cents per pound to list.

For ¼ pound papers, where prices are not given, add 8 cents per pound to list.

Sweeds and American Cut, Sweeds Upholsterers' and American Carpet Tacks.

BULK.

Size..... ..ounce	1	1½	2	2½	3	4	6	8
Price, Blued..per pound	3.20	2.40	1.85	1.60	1.45	1.30	1.15	1.00
Price, Tinned..... per pound	5.85	4.00	2.95	2.40	2.00	1.85	1.55	1.40

Size.....ounce	10	12	14	16	18	20	22	24
Price, Blued..per pound	.95	.90	.85	.80	.80	.80	.80	.80
Price, Tinned .... per pound	1.35	1.30	1.25	1.20	1.20	1.20	1.20	1.20

Flat Head Copper Tacks.

Size.....ounce	6	10	14	18	22	24	26
Length..... inches	½	⅝	¾	⅞	1	1¼	1½
Price .....per pound	.56	.56	.56	.56	.56	.56	.56

Copper Nails.

Length ..... inches	½	⅝	¾	⅞	1	1¼	1½
Price, one pound packages..... per pound	.56	.56	.56	.56	.56	.56	.56

Double Pointed Tacks.

Number	9	10	11	12	14
Price, Blued.....per pound	.46	.42	.41	.40	.39
Price, Tinned..... per pound	.61	.57	.56	.55	.54

Blind Staples, No. 18, Coppered Wire, Needle Pointed.

Size ..... inches	⅜	½	⅝	¾
Price ..... per pound	.50	.45	.42	.40

Electrician's Staples, Coppered Wire.

Size ..... inches	½	⅝	¾
Price..... ..per pound	.45	.42	.40

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 835

FILES AND RASPS.

ROUGH.

FIG. 2267.

MIDDLE.

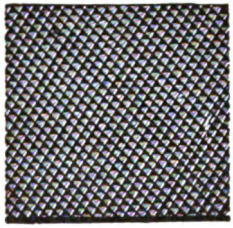

FIG. 2268.

BASTARD.

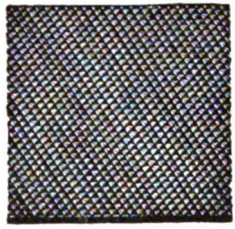

FIG. 2269.

SECOND CUT.

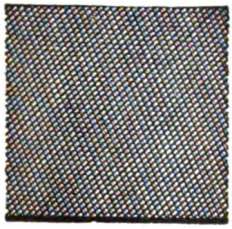

FIG. 2270.

SMOOTH.

FIG. 2271.

DEAD SMOOTH.

FIG. 2272.

BASTARD.

FIG. 2273.

SECOND CUT.

FIG. 2274.

HORSE.

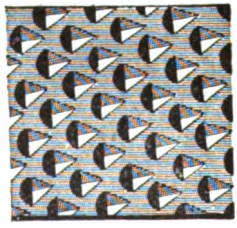

FIG. 2275.

ROUGH.

FIG. 2276.

MIDDLE.

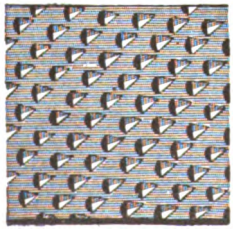

FIG. 2277.

BASTARD.

FIG. 2278.

Illustrations are from files 12 inches long; if longer, they will be larger, if shorter, less in proportion.

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THE W. M. PATTISON SUPPLY CO. 836 CLEVELAND

Length, Inches.	PRICE, PER DOZEN.								
	MILL AND ROUND.			FLAT.			SQUARE.		
	Bastard	2d Cut.	Smooth	Bastard.	2d Cut.	Smooth	Bastard	2d Cut.	Smooth
4	3.00	3.50	3.90	3.70	4.30	4.70	3.80	4.60	4.90
5	3.20	3.80	4.10	3.90	4.60	4.90	4.10	4.80	5.30
6	3.50	4.00	4.50	4.30	4.80	5.30	4.60	5.10	5.50
7	3.90	4.60	4.90	4.80	5.50	6.10	5.10	5.80	6.30
8	4.30	4.90	5.40	5.30	6.10	6.60	5.50	6.30	7.00
9	4.90	5.80	6.30	6.30	7.20	7.90	6.60	7.70	8.30
10	5.60	6.40	7.00	7.00	8.10	8.70	7.40	8.50	9.10
11	6.70	7.80	8.50	8.60	9.80	10.70	9.10	10.40	11.30
12	7.50	8.60	9.40	9.70	11.00	12.10	10.20	11.50	12.80
13	9.40	10.70	11.70	11.80	13.60	14.70	12.50	14.30	15.40
14	10.70	12.20	13.10	13.30	15.30	16.70	13.90	16.10	17.50
15	13.10	15.00	16.10	16.00	18.30	20.00	16.90	19.20	20.90
16	14.70	16.80	17.90	17.80	20.10	22.30	18.70	21.20	23.30
17	18.20	20.20	21.70	21.50	24.20	26.50	22.50	25.40	27.50
18	20.20	22.70	24.30	23.90	26.80	29.20	25.10	28.20	30.40
19	24.60	27.50	29.40	28.40	31.60	34.60	29.70	33.20	35.70
20	27.40	30.70	32.90	31.50	35.30	38.30	32.80	36.70	39.30

Mill Blunt, Dbl. Cut. advance 2 in.
Mill Double Cut .....advance 1 in.
Mill Narrow Point...advance 1 in.
Mill Machine ....advance 1 in.
Mill Triangular & Sq. .. adv. 1 in.
Farmers' Own, adv. on Bast. 1 in.

Cant (Blunt) Double Cut advance 2 inches.

Square Blunt, advance 1 inch.

Length, Inches.	HAND AND PILLAR.			HALF ROUND AND THREE SQUARE.			WARDING.		
4	3.70	4.30	4.80	4.80	5.60	6.10	4.00	4.80	5.40
5	3.90	4.70	5.30	5.40	6.10	6.40	4.50	5.30	5.80
6	4.30	5.10	5.60	6.10	6.70	7.10	4.90	5.90	6.40
7	4.90	5.80	6.30	7.00	7.70	8.20	5.90	6.90	7.50
8	5.40	6.30	6.70	7.50	8.30	8.90	6.40	7.50	8.20
9	6.70	7.80	8.30	8.50	9.40	9.90	7.80	9.00	9.90
10	7.50	8.70	9.40	9.10	10.10	10.70	8.70	10.10	11.00
11	9.40	10.90	11.80	10.70	11.80	12.70	10.90	12.70	13.70
12	10.70	12.30	13.50	11.80	13.00	13.90	12.30	14.30	15.40
13	13.30	15.20	16.20	14.10	15.40	16.60	15.20	17.40	18.70
14	15.00	17.00	18.20	15.50	17.00	18.30	17.00	19.40	21.00
15	17.90	20.60	21.70	18.50	20.40	21.70			
16	20.10	22.80	24.20	20.60	22.50	24.20			
17	24.20	27.10	28.60	24.70	27.00	28.90			
18	26.80	29.90	31.50	27.50	29.90	32.00			
19	31.90	35.40	37.60	32.80	35.70	38.10			
20	35.10	39.20	41.60	36.20	39.40	42.30			

STAVESAW.

8 inch.....9.40

STAVESAW IMPROVED.

6 inch.....6.40
7 inch.....7.40
8 inch.....8.10
9 inch.....9.70
10 inch.....10.70
12 inch.....15.40

Slotting (Blt.) Advance 2 inches.
Cotter Blunt or Taper adv. 2 in.
Reaper, advance 1 in. on 2d Cut.

Ginsaw.....take Bastard price.
Crossing.....advance 2 in.
Tumbler ..... advance 2 in.
Feather Edge (Blt.)..advance 2 in.
High Back } .....advance 2 in.
Half Round }

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FILES.

THE W. M. PATTISON SUPPLY CO. 837 CLEVELAND

PRICE, PER DOZEN.

Length, Inches.	Mill, One Round Edge.			Mill, Two Round Edges.			Length, Inches.	Tapers.		Slim Tapers.		Bandsaw, Blunt & Taper	
	Bastard	2d Cut.	Smooth	Bastard	2d Cut.	Smooth		Single Cut.	Double Cut.	Single Cut.	Double Cut.	Regular.	Slim.
4	3.40	3.90	4.40	3.80	4.40	4.90	3	2.10	2.50	2.10	2.50	2.50	2.50
5	3.60	4.30	4.60	4.00	4.80	5.10	3½	2.10	2.50	2.10	2.50	2.50	2.50
6	3.90	4.50	5.10	4.40	5.00	5.60	4	2.20	2.90	2.20	2.60	2.90	2.60
7	4.40	5.20	5.50	4.90	5.80	6.10	4½	2.40	3.10	2.30	3.00	3.10	3.00
8	4.80	5.50	6.10	5.40	6.10	6.80	5	2.60	3.50	2.50	3.20	3.50	3.20
9	5.50	6.50	7.10	6.10	7.30	7.90	5½	3.00	4.00	2.90	3.50	4.00	3.50
10	6 30	7.20	7.90	7.00	8.00	8.80	6	3.40	4.70	3.10	3.90	4.70	3.90
11	7.50	8.80	9.60	8.40	9.80	10.60	7	4.30	5.60	3.80	4.50	5.60	4.50
12	8.40	9.70	10.60	9.40	10.80	11.80	8	5.40	6.70	4.50	5.30	6.70	5.30
13	10.60	12.00	13.20	11.80	13.40	14.60	9	6.60	8.10	5.40	6.30	8.10	6.30
14	12.00	13.70	14.70	13.40	15.30	16.40	10	8.10	9.70	6.40	7.50	9.70	7.50
15	14.70	16.90	18.10	16.40	18.80	20.10	11	10.70	12.10	8.30	9.10	12.10	9.10
16	16.50	18.90	20.10	18.40	21.00	22.40	12	12.50	14.70	9.50	11.00	14.70	11.00
17	20.50	22.70	24.40	22.80	25.30	27.10	13	15.90	17.50	12.10	13.10	17.50	13.10
18	22.70	25.50	27.30	25.30	28.40	30.40	14	18.20	20.60	13.80	15.40	20.60	15.40

Length, Inches.	Pit Saw.	Cant Saw.	Cross Cut.	Hook Tooth.	Planer Knife.	Inserted Tooth or Chisel Tooth.	Length, Inches.	Knife.			Patent Double Ender With Handle
	Single Cut.	Single Cut.	Single Cut.	Single Cut.	Single Cut.			Bastard	2d Cut.	Smooth	
4	4.80	4.30	4.80	.....	.....	.....	4	5.40	6.10	6.40	.....
5	5.40	4.70	5.40	.....	.....	.....	5	6.10	6.70	7.10	.....
6	6.10	5.40	6.10	6.70	.....	.....	6	6.90	7.50	7.90	.....
7	7.00	6.10	7.00	7.70	.....	.....	7	7.80	8.50	8.90	3.50
8	7.50	6.40	7.50	8.30	6.40	8.30	8	8.50	9.10	9.50	3.90
9	8.50	7.80	8.50	9.40	.....	9.40	9	9.40	10.60	11.30	4.40
10	9.10	8.70	9.10	10.10	8.60	10.10	10	10.10	11.50	12.30	4.90
11	10.70	10.40	10.70	11 80	.....	.....	11	12.20	13.70	14.60	.....
12	11.80	11.40	11.80	13.00	12.10	.....	12	13.70	15.20	16.10	.....
							13	16.30	17.90	19.20	.....
							14	18.20	19.90	21.20	.....

Climax, adv. 2 in. on Hlf. Rd. Bastard Round Gulleting, take Pitsaw price.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

FILES AND RASPS.

Length, Inches.	PRICE PER DOZEN.							
	HORSE RASPS.			FILE RASPS.		WOOD FILES.		
	Plain.	Beveled and ½ Rasp.	Tanged.	Flat.	Half Round.	Flat.	Half Round.	Cabinet.
6	.....	.....	.....	7.40	8.10	4.30	6.10	8.10
7	.....	.....	.....	8.60	9.30	4.80	7.00	9.30
8	.....	.....	.....	9.40	10.10	5.30	7.50	10.10
9	.....	.....	.....	11.40	12.20	6.30	8.50	12.20
10	9.40	10.70	12.80	12.80	13.70	7.00	9.10	13.70
11	11.40	12.90	15.20	15.50	16.80	8.60	10.70	16.80
12	12.80	14.40	16.80	17.50	18.70	9.70	11.80	18.70
13	15.20	17.00	19.60	20.90	22.40	11.80	14.10	22.40
14	17.80	20.10	23.10	23.20	24.80	13.30	15.50	24.80
15	20.90	23.60	27.30	27.80	29.70	16.00	18.50	29.70
16	24.40	27.50	32.20	30.80	32.90	17.80	20.60	32.90
17	28.90	31.50	.....	36.20	38.90	21.50	24.70	38.90
18	32.90	36.20	.....	40.90	43.60	23.90	27.50	43.60

Length, Inches.	WOOD RASPS.			SHOE RASPS.		
	Flat.	Half Round.	Cabinet.	Flat.	Half Round.	Oval.
6	7.40	8.10	10.10	8.10	8.10	9.30
7	8.60	9.30	11.70	9.30	9.30	10.10
8	9.40	10.10	12.80	10.10	10.10	12.20
9	11.40	12.20	15.50	12.20	12.20	13.70
10	12.80	13.70	17.50	13.70	13.70	16.80
11	15.50	16.80	20.70	16.80	16.80	18.70
12	17.50	18.70	22.80	18.70	18.70	22.40
13	20.90	22.40	26.80	22.40	22.40	.....
14	23.20	24.80	29.60	24.80	24.80	.....
15	27.80	29.70	33.90	.....	.....	.....
16	30.80	32.90	36.90	.....	.....	.....
17	36.20	38.90	42.40	LAST MAKERS' RASPS.		
18	40.90	43.60	46.90	One inch adv. on Cabinet Rasps.		

Sizes below 4 inches, not extended, take 4 inch price.
Half inches not specified, take next higher full inch price.
Dead Smooth, double the price of Bastard Cut.
One Round Edge, advance 12½ per cent.
All lengths above those listed, advance 20 per cent on next lower inch price.
Blunt Files not specified, advance one inch on respective kinds and cuts.
Single or Float cut not specified, on regular shapes take Double Cut price.
Equalings (Bellied), advance two inches on respective kinds and cuts.
Two Round Edges, advance 25 per cent.
Files varying from standard sizes, subject to special prices.
Cuts not specified, made upon regular blanks, advance one inch on respective kinds and nearest cut.

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X★F SWISS PATTERN FILES.

THE W. M. PATTISON SUPPLY CO. 839 CLEVELAND

PRICE PER DOZEN.

Number.	Hand.						Pillar, Pillar Narrow, Pillar Extra Narrow.			
Length, Inches.	00–2	3–4	5	6	7	8	00–2	3–4	5–6	7–8
3	2.80	2.90	3.00	3.15	3.30	3.45	2.60	2.65	2.70	2.80
3½	3.00	3.15	3.20	3.35	3.55	3.75	2.75	2.80	2.90	3.00
4	3.15	3.30	3.40	3.55	3.75	3.95	2.95	3.00	3.10	3.20
4½	4.15	4.25	4.40	4.60	4.80	5.00	3.85	3.90	4.00	4.15
5	4.35	4.50	4.70	5.00	5.20	5.40	4.00	4.15	4.25	4.45
6	4.80	5.00	5.20	5.40	5.80	6.20	4.30	4.40	4.55	4.75
7	6.40	6.60	6.80	7.20	7.60	8.00	5.50	5.70	6.00	6.15
8	7.00	7.20	7.60	8.00	8.40	9.15	6.50	6.70	6.90	7.10
10	9.55	9.90	10.50	11.10	11.50	12.30	8.70	8.90	9.30	9.70
12	12.30	12.60	13.60	14.00	14.70	15.50	11.20	12.00	14.10	15.50
14	15.00	15.00	16.00	17.00	18.20	19.50	.....	.....	.....	.....

Pillar, Pillar Narrow, and Pillar Extra Narrow, with one or both edges cut, take same List Price as with two safe edges.

Number.	3-Square and Metal Saw.			Knife.				Warding.			
Length, Inches.	00–2	3–5	6–8	00–2	3–4	5–6	7–8	00–2	3–4	5–6	7–8
3	2.80	2.95	3.05	2.90	3.00	3.05	3.15	2.55	2.60	2.70	2.80
3½	3.05	3.15	3.30	3.30	3.35	3.45	3.55	2.80	2.90	3.00	3.15
4	3.30	3.40	3.50	3.60	3.70	3.80	3.90	3.15	3.30	3.45	3.60
4½	4.15	4.25	4.40	4.60	4.75	4.95	5.15	4.05	4.20	4.35	4.55
5	4.35	4.45	4.60	4.90	5.10	5.30	5.50	4.20	4.40	4.60	4.80
6	5.00	5.10	5.25	5.40	5.80	6.20	6.60	4.80	5.00	5.20	5.40
7	6 60	6.90	7.20	7.20	7.60	8.00	8.40	6.10	6.40	6.80	7.20
8	7.80	8.15	8.55	8.80	9.20	9.60	10.00	6.80	7.20	7.60	8.00
10	9.15	9.55	9.90	10.30	10.70	11.10	11.50	9.00	9.60	10.00	10.40
12	11.20	11.60	12.00	12.30	12.70	13.10	13.50	11.40	12.20	12.60	13.00

Number.	Half Round.			Crossing.			Barrette.			Square.		
Length, Inches.	00–2	3–5	6–8	00–2	3–5	6–8	00–2	3–5	6–8	00–2	3–5	6–8
3	2.90	3.00	3.15	2.80	2.85	2.95	2.80	2.85	2.95	2.25	2.25	2.25
3½	3.05	3.15	3.60	3.25	3.30	3.40	3.25	3.35	3.40	2.50	2.50	2.50
4	3.20	3.70	4.20	3.70	3.80	4.00	3.70	3.75	3.85	2.80	2.95	3.05
4½	4.10	4.65	5.10	4.70	4.95	5.20	4.60	4.75	4.95	3.70	3.75	3.90
5	4.35	4.95	5.30	5.00	5.40	5.80	5.25	5.40	5.60	3.85	3.95	4.05
6	5.00	5.60	6.15	5.60	6.10	6.55	6.20	6.35	6.55	4.40	4.55	4.70
7	6.80	7.60	8.20	7.40	8.10	8.75	7.95	8.15	8.35	5.65	5.85	6.00
8	7.80	8.75	9.55	8.50	9.25	10.10	9.15	9.35	9.55	6.40	6.80	7.20
10	10.70	13.80	16.20	11.50	14.30	16.90	12.30	12.50	12.80	7.20	8.00	8.80
12	12.90	16.90	19.30	14.70	18.50	22.00	15.50	15.70	16.00	8.80	9.60	10.40

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X★F SWISS PATTERN FILES.

PRICE, PER DOZEN.

Number.	Round.			Barrette Cut All Sides and Cant.			Crochet.		
	00–2	3–5	6–8	00–2	3–5	6–8	00–2	3–5	6–8
Length, Inches. 3	2.05	2.05	2.05	3.30	3.35	3.45	2.80	3.00	3.20
3½	2.25	2.25	2.25	3.90	4.00	4.10	3.20	3.40	3.60
4	2.50	2.60	2.65	4.40	4.60	4.80	3.50	3.70	3.90
4½	3.25	3.35	3.50	5.80	6.00	6.20	4.40	4.70	5.00
5	3.35	3.50	3.70	6.20	6.40	6.55	4.60	4.95	5.25
6	3.70	3.90	4.10	7.35	7.60	7.75	5.40	5.70	6.00
7	4.85	5.25	5.65	8.60	8.90	9.10	7.20	7.60	8.00
8	5.65	6.00	6.40	10.00	10.40	10.60	8.35	8.75	9.15
10	7.60	8.35	9.55	.....	.....	.....	11.60	12.00	12.45
12	9.30	10.10	11.30	.....	.....	.....	.....	.....	.....

Length.....inches	3	3½	4	4½	5	6	7	8	10	12
Equaling.....All Cuts	2.50	2.80	3.20	4.20	4.55	4.90	6.10	6.90	10.00	13.50
Slitting.....All Cuts	3.15	3.50	4.00	5.20	5.70	6.80	8.20	9.40	12.60	16.00
Round, Straight.....All Cuts	2.25	2.50	2.80	3.50	3.90	4.50	6.00	7.20	.....	.....
Drill or Joint, Rd. or Sq Edge.....All Cuts	2.50	2.60	2.70	3.50	4.05	4.40	5.45	5.85	.....	.....
Thickness of Drill or Joint.....Thin	.02	.03	.04	.05	.06	.08	.09	.10	.....	.....
Thickness of Drill or Joint.....Thick	.06	.07	.08	.09	.10	.12	.13	.14	.....	.....

Needle Files.

Round Handle	10 centimeter or 4 inch..	1.90
Round Handle	12 centimeter or 4¾ inch..	1.90
Round Handle	14 centimeter or 5½ inch..	2.10
Round Handle	16 centimeter or 6¼ inch..	2.25
Square Handle or Escapement	14 centimeter or 5½ inch..	2.35

Needle Files of the following twelve varieties, viz:

Round, Half-Round, Flat, Oval, Knife, Square, 3-Square, Equaling, Slitting, Joint, Barrette, and Marking (if Round Handle) or Half Round Blunt (if Square Handle).

Put up in dozens, either assorted (one of each kind) or in kinds.

Assorted dozens will always be sent when order does not state otherwise.

Width in Decimal Parts of an Inch Stated as Near as Practicable.

Length.....inches	2	2½	3	3½	4	4½	5	6	7	8	10	12	14
Hand	.33	.38	.43	.48	.53	.58	.62	.72	.81	.90	1.09	1.27	1.45
Pillar	.23	.26	.29	.32	.35	.38	.42	.48	.54	.60	.73	.85	.....
Pillar Narrow	.17	.19	.22	.24	.27	.29	.31	.36	.41	.45	.55	.64	.....
Pillar Extra Narrow	.12	.13	.14	.16	.18	.19	.21	.24	.27	.30	.36	.42	.....

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SCRAPING TOOLS.

FIG. 2279.

Price 6 tools varying in size from 8 to 14 inches.....per set	2.50

FILE CARDING OR WIRE BRUSHES.

HANDLED.

FIG. 2280.

IN ROLLS.

FIG. 2281.

Price, Handled, Black Wood.....per dozen	1.50
Price, In Rolls, Leather Back, width 1½ inches.....per dozen	.25

FILE CLEANERS.

FILE CARD WITH SCORER.

FIG. 2282.

FILE BRUSH AND CARD.

FIG. 2283.

Price, File Cards with Scorer.....per dozen	2.50
Price, File Brush and Card.....per dozen	4.40

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TWIST DRILLS.

TAPER SHANK.

FIG. 2284.

SECTION OF THREE FLUTED TAPER SHANK.

FIG. 2285.

Taper Shank and Three Fluted Taper Shank Twist Drills.

Diameter, Inches.	Price, Each.	Length, Inches.
1/8	.45	5 1/8
9/64	.45	5 1/8
5/32	.50	5 3/8
11/64	.55	5 3/8
3/16	.60	6 1/8
13/64	.65	6 1/4
7/32	.70	6 3/8
15/64	.75	6 1/2
1/4	.80	6 3/4
17/64	.85	7
9/32	.90	7 1/4
19/64	.95	7 1/2
5/16	1.00	7 3/4
21/64	1.10	8
11/32	1.20	8 1/4
23/64	1.30	8 1/2
3/8	1.40	8 3/4
25/64	1.50	9
13/32	1.60	9 1/4
27/64	1.70	9 1/2
7/16	1.85	9 3/4
29/64	2.00	9 7/8
15/32	2.15	10
31/64	2.30	10 1/4
1/2	2.45	10 1/2
33/64	2.60	10 5/8
17/32	2.75	10 3/4
35/64	2.90	10 7/8
9/16	3.00	11
37/64	3.20	11 1/8
19/32	3.40	11 1/4
39/64	3.60	11 1/2
5/8	3.80	11 3/4
41/64	4.00	11 7/8
21/32	4.20	12
43/64	4.40	12 1/8
11/16	4.50	12 1/2
45/64	4.65	14 1/8
23/32	4.80	14 1/4

Taper Shank Twist Drills, 64th Sizes.

Diameter, Inches.	Price, Each.	Length, Inches.
1/64	.60	6 1/8
1/32	.65	6 1/4
3/64	.70	6 3/8
1/16	.75	6 1/2
5/64	.80	6 3/4
3/32	.85	7
7/64	.90	7 1/4
1/8	.95	7 1/2
9/64	1.00	7 3/4
5/32	1.10	8
11/64	1.20	8 1/4
3/16	1.30	8 1/2
13/64	1.40	8 3/4
7/32	1.50	9
15/64	1.60	9 1/4
1/4	1.70	9 1/2
17/64	1.85	9 3/4
9/32	2.00	9 7/8
19/64	2.15	10
5/16	2.30	10 1/4
21/64	2.45	10 1/2
11/32	2.60	10 5/8
23/64	2.75	10 3/4
3/8	2.90	10 7/8
25/64	3.00	11
13/32	3.20	11 1/8
27/64	3.40	11 1/4
7/16	3.60	11 1/2
29/64	3.80	11 3/4
15/32	4.00	11 7/8
31/64	4.20	12
1/2	4.40	12 1/8
33/64	4.50	12 1/2
17/32	4.65	14 1/8
35/64	4.80	14 1/4
9/16	5.00	14 3/8
37/64	5.20	14 1/2
19/32	5.40	14 5/8
39/64	5.60	14 3/4
5/8	5.80	14 7/8
41/64	6.00	15
21/32	6.30	15 1/8
43/64	6.60	15 1/4
11/16	6.90	15 3/8
45/64	7.20	15 1/2
23/32	7.50	15 5/8
47/64	7.80	15 3/4
3/4	8.10	15 7/8
49/64	8.40	16
25/32	8.60	16 1/8
51/64	8.80	16 1/4
13/16	9.00	16 3/8
53/64	9.20	16 1/2
27/32	9.35	16 1/2
55/64	9.50	16 1/2
7/8	9.65	16 1/2
57/64	9.80	16 1/2
29/32	10.20	16 1/2
59/64	10.60	17
15/16	11.20	17
61/64	12.00	17
31/32	12.80	17 1/2
63/64	13.60	17 1/2
1	14.40	18
1 1/64	15.00	18 1/2
1 1/32	15.60	19
1 3/64	16.20	19 1/4
1 1/16	16.80	19 1/2
1 5/64	17.60	20
1 3/32	19.00	20 1/2
1 7/64	20.00	20 1/2
1 1/8	21.00	21
1 9/64	23.00	21
1 5/32	25.00	21

Drills over 2 3/4 take list of next larger size.

Above Taper Shank Drills Have Morse Taper Shank as Follows:

Number	1	2	3	4	5
Diameter ..... inches	1/8 to 9/16	19/32 to 29/32	15/16 to 1 1/4	1 9/32 to 2	2 1/32 to 3
Diameter ..... inches	15/64 to 37/64	39/64 to 57/64	59/64 to 1 15/64	1 17/64 to 1 63/64	2 1/64 to 2 31/64

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THE W. M. PATTISON SUPPLY CO. 843 CLEVELAND

TWIST DRILLS.

STRAIGHT SHANK.

FIG. 2286.

Straight Shank Twist Drills.

Diameter, Inches.	Price, Each.	Length, Inches.	Diameter, Inches.	Price, Each.	Length, Inches.
1/16	.35	3 5/8	1 3/16	4.20	12
3/32	.35	4 3/8	1 7/32	4.40	12 1/8
1/8	.45	5 1/8	1 1/4	4.50	12 1/2
3/32	.45	5 3/8	1 9/32	4.65	14 1/8
1/16	.50	5 5/8	1 5/16	4.80	14 1/4
3/32	.55	5 7/8	1 11/32	5.00	14 3/8
1/8	.60	6 1/8	1 3/8	5.20	14 1/2
9/32	.65	6 1/4	1 13/32	5.40	14 5/8
5/16	.70	6 3/8	1 7/16	5.60	14 3/4
11/32	.75	6 1/2	1 15/32	5.80	14 7/8
3/8	.80	6 3/4	1 1/2	6.00	15
13/32	.85	7	1 17/32	6.30	15 1/8
7/16	.90	7 1/8	1 9/16	6.60	15 1/4
15/32	.95	7 1/4	1 19/32	6.90	15 3/8
1/2	1.00	7 3/4	1 5/8	7.20	15 1/2
17/32	1.10	8	1 21/32	7.50	15 5/8
9/16	1.20	8 1/4	1 11/16	7.80	15 3/4
19/32	1.30	8 1/2	1 23/32	8.10	15 7/8
5/8	1.40	8 3/4	1 3/4	8.40	16
21/32	1.50	9	1 25/32	8.60	16 1/8
11/16	1.60	9 1/4	1 13/16	8.80	16 1/4
23/32	1.70	9 1/2	1 27/32	9.00	16 3/8
3/4	1.85	9 3/4	1 7/8	9.20	16 1/2
25/32	2.00	9 7/8	1 29/32	9.35	16 1/2
13/16	2.15	10	1 15/16	9.50	16 1/2
27/32	2.30	10 1/4	1 31/32	9.65	16 1/2
7/8	2.45	10 1/2	2	9.80	16 1/2
29/32	2.60	10 3/4	2 1/32	10.20	16 1/2
15/16	2.75	10 3/4	2 1/16	10.60	17
31/32	2.90	10 7/8	2 1/8	11.20	17
1	3.00	11	2 1/16	12.00	17
1 1/32	3.20	11 1/8	2 1/4	12.80	17 1/2
1 1/16	3.40	11 1/4	2 5/16	13.60	17 1/2
1 3/32	3.60	11 1/2	2 3/8	14.40	18
1 1/8	3.80	11 3/4	2 7/16	15.00	18 1/2
1 5/32	4.00	11 7/8	2 1/2	15.60	19

Drills over 2 1/2 in. same list Fig. 2284 Taper Shank Pg. 842.

Straight Shank Twist Drills, 64th Sizes.

Diameter, Inches.	Price, Each.	Length, Inches.	Diameter. Inches.	Price, Each.	Length, Inches.
1 5/64	.60	6 1/8	1 11/64	4.65	14 1/8
1 7/64	.65	6 1/4	1 13/64	4.80	14 1/4
1 9/64	.70	6 3/8	1 15/64	5.00	14 3/8
1 11/64	.75	6 1/2	1 17/64	5.20	14 1/2
1 13/64	.80	6 5/8	1 19/64	5.40	14 5/8
1 15/64	.85	7	1 21/64	5.60	14 3/4
1 17/64	.90	7 1/4	1 23/64	5.80	14 7/8
1 19/64	.95	7 3/8	1 25/64	6.00	15
1 21/64	1.00	7 3/4	1 27/64	6.30	15 1/8
1 23/64	1.10	8	1 29/64	6.60	15 1/4
1 25/64	1.20	8 1/4	1 31/64	6.90	15 3/8
1 27/64	1.30	8 3/8	1 33/64	7.20	15 1/2
1 29/64	1.40	8 3/4	1 35/64	7.50	15 5/8
1 31/64	1.50	9	1 37/64	7.80	15 3/4
1 33/64	1.60	9 1/4	1 39/64	8.10	15 7/8
1 35/64	1.70	9 1/2	1 41/64	8.40	16
1 37/64	1.85	9 3/4	1 43/64	8.60	16 1/8
1 39/64	2.00	9 5/8	1 45/64	8.80	16 1/4
1 41/64	2.15	10	1 47/64	9.00	16 3/8
1 43/64	2.30	10 1/4	1 49/64	9.20	16 1/2
1 45/64	2.45	10 1/4	1 51/64	9.35	16 1/2
1 47/64	2.60	10 3/8	1 53/64	9.50	16 1/2
1 49/64	2.75	10 3/4	1 55/64	9.65	16 1/2
1 51/64	2.90	10 7/8	1 57/64	9.80	16 1/2
1 53/64	3.00	11	2 1/64	10.20	16 1/2
1 55/64	3.20	11 1/8	2 3/64	10.60	17
1 57/64	3.40	11 1/4	2 5/64	11.20	17
1 59/64	3.60	11 1/2	2 7/64	12.00	17
1 61/64	3.80	11 3/4	2 9/64	12.80	17 1/2
1 63/64	4.00	11 7/8	2 11/64	13.60	17 1/2
2	4.20	12	2 13/64	14.40	18
2 1/32	4.40	12 1/8	2 15/64	15.00	18 1/2
2 1/16	4.50	12 1/2	2 17/64	15.60	19
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

Drills over 2 17/64 inch take list of next larger size.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TWIST DRILLS.

STRAIGHT SHANK.

FIG. 2287.

STRAIGHT SHANK, LETTER SIZE.

FIG. 2288.

Straight Shank Twist Drills.

Diameter, Inches.	Price, Per Dozen.	Price, Each.	Length, Inches.
1/16	1.00	.09	2 1/2
5/64	1.10	.10	2 5/8
3/32	1.20	.11	2 3/4
7/64	1.30	.12	2 7/8
1/8	1.45	.13	3
9/64	1.60	.15	3 1/8
5/32	1.80	.16	3 1/4
11/64	2.00	.18	3 3/8
3/16	2.20	.20	3 1/2
13/64	2.40	.21	3 5/8
7/32	2.65	.23	3 3/4
15/64	2.90	.26	3 7/8
1/4	3.15	.28	4
17/64	3.40	.30	4 1/8
9/32	3.65	.32	4 1/4
19/64	3.90	.35	4 3/8
5/16	4.20	.37	4 1/2
21/64	4.50	.40	4 5/8
11/32	4.80	.42	4 3/4
23/64	5.10	.45	4 7/8
3/8	5.40	.48	5
25/64	5.70	.50	5 1/8
13/32	6.00	.53	5 1/4
27/64	6.40	.55	5 3/8
7/16	6.80	.59	5 1/2
29/64	7.20	.63	5 5/8
15/32	7.50	.65	5 3/4
31/64	7.75	.67	5 7/8
1/2	8.00	.70	6

Straight Shank Twist Drills, Letter Size.

Diameter.	Price, Per Dozen.	Price, Each.	Size of Hole, Inches.	Length Inches.
A 15/64	2.90	.26	.234	3 13/16
B	3.00	.27	.238	3 13/16
C	3.10	.28	.242	3 13/16
D	3.20	.29	.246	3 13/16
E 1/4	3.30	.30	.250	3 13/16
F	3.40	.30	.257	4 1/4
G	3.50	.31	.261	4 1/4
H 17/64	3.60	.32	.266	4 1/4
I	3.70	.33	.272	4 1/4
J	3.80	.34	.277	4 1/4
K 9/32	3.90	.35	.281	4 1/4
L	4.00	.36	.290	4 1/4
M 19/64	4.10	.36	.295	4 1/4
N	4.20	.37	.302	4 1/4
O 5/16	4.30	.38	.316	4 1/4
P 21/64	4.40	.39	.323	4 5/8
Q	4.60	.40	.332	4 3/4
R 11/32	4.80	.42	.339	4 3/4
S	5.00	.44	.348	4 7/8
T 23/64	5.20	.45	.358	4 7/8
U	5.40	.47	.368	5
V 3/8	5.60	.49	.377	5
W 25/64	5.80	.51	.386	5 1/8
X	6.00	.53	.397	5 1/4
Y 13/32	6.40	.55	.404	5 1/4
Z	6.80	.59	.413	5 3/8

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 845

TWIST DRILLS.

STRAIGHT SHANK.

FIG. 2289.

Number by Gauge.	Price, per Dozen.	Price, Each.	Decimals of 1 Inch.	Length, Inches.	Number by Guage	Price per Dozen.	Price, Each.	Decimals of 1 Inch.	Length, Inches.
1	2.35	.22	.2280	4	41	1.10	.10	.0960	2 5/16
2	2.35	.22	.2210	3 15/16	42	1.10	.10	.0935	2 5/16
3	2.35	.22	.2130	3 15/16	43	1.10	.10	.0890	2 1/4
4	2.35	.22	.2090	3 7/8	44	1.10	.10	.0860	2 3/16
5	2.35	.22	.2055	3 13/16	45	1.10	.10	.0820	2 3/16
6	2.25	.21	.2040	3 13/16	46	.95	.09	.0810	2 1/8
7	2.25	.21	.2010	3 3/4	47	.95	.09	.0785	2 1/16
8	2.25	.21	.1990	3 11/16	48	.95	.09	.0760	2 1/16
9	2.25	.21	.1960	3 11/16	49	.95	.09	.0730	2
10	2.25	.21	.1935	3 5/8	50	.95	.09	.0700	1 15/16
11	2.10	.20	.1910	3 9/16	51	.95	.09	.0670	1 15/16
12	2.10	.20	.1890	3 9/16	52	.95	.09	.0635	1 7/8
13	2.10	.20	.1850	3 1/2	53	.95	.09	.0595	1 13/16
14	2.10	.20	.1820	3 7/16	54	.95	.09	.0550	1 13/16
15	2.10	.20	.1800	3 7/16	55	.95	.09	.0520	1 3/4
16	1.95	.19	.1770	3 3/8	56	.95	.09	.0465	1 11/16
17	1.95	.19	.1730	3 5/16	57	.95	.09	.0430	1 11/16
18	1.95	.19	.1695	3 5/16	58	.95	.09	.0420	1 5/8
19	1.95	.19	.1660	3 1/4	59	.95	.09	.0410	1 9/16
20	1.95	.19	.1610	3 3/16	60	.95	.09	.0400	1 9/16
21	1.75	.17	.1590	3 3/16	61	.90	.08	.039	1 1/2
22	1.75	.17	.1570	3 1/8	62	.90	.08	.038	1 1/2
23	1.75	.17	.1540	3 1/16	63	.90	.08	.037	1 1/2
24	1.75	.17	.1520	3 1/16	64	.90	.08	.036	1 1/2
25	1.75	.17	.1495	3	65	.90	.08	.035	1 1/2
26	1.55	.15	.1470	2 15/16	66	.90	.08	.033	1 1/2
27	1.55	.15	.1440	2 15/16	67	.90	.08	.032	1 7/16
28	1.55	.15	.1405	2 7/8	68	.90	.08	.031	1 7/16
29	1.55	.15	.1360	2 13/16	69	.90	.08	.02925	1 3/8
30	1.55	.15	.1285	2 13/16	70	.90	.08	.028	1 5/16
31	1.40	.14	.1200	2 3/4	71	1.00	.09	.026	1 5/16
32	1.40	.14	.1160	2 11/16	72	1.00	.09	.025	1 1/4
33	1.40	.14	.1130	2 11/16	73	1.00	.09	.024	1 3/16
34	1.40	.14	.1110	2 5/8	74	1.00	.09	.0225	1 1/8
35	1.40	.14	.1100	2 9/16	75	1.00	.09	.021	1 1/16
36	1.25	.12	.1065	2 9/16	76	1.00	.09	.020	1
37	1.25	.12	.1040	2 1/2	77	1.00	.09	.018	15/16
38	1.25	.12	.1015	2 7/16	78	1.00	.09	.016	7/8
39	1.25	.12	.0995	2 7/16	79	1.00	.09	.0145	13/16
40	1.25	.12	.0980	2 3/8	80	1.00	.09	.0135	3/4

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

FLUTED DRILLS.

TAPER SHANK.

FIG. 2290.

STRAIGHT SHANK.

FIG. 2291.

Taper Shank Fluted Drills.			Taper Shank Fluted Drills.			Straight Shank Fluted Drills.			
Diameter, Inches.	Price, Each.	Length, Inches.	Diameter, Inches.	Price, Each.	Length, Inches.	Diameter, Inches.	Price. Per Dozen.	Price, Each.	Length Inches.
1/4	.60	6 1/8	1 9/32	4.65	14 1/8	1/16	1.00	.09	2 1/2
9/32	.65	6 1/4	1 5/16	4.80	14 1/4	5/64	1.10	.10	2 5/8
5/16	.70	6 3/8	1 11/32	5.00	14 3/8	3/32	1.20	.11	2 3/4
11/32	.75	6 1/2	1 3/8	5.20	14 1/2	7/64	1.30	.12	2 7/8
3/8	.80	6 3/4	1 13/32	5.40	14 5/8	1/8	1.45	.13	3
13/32	.85	7	1 7/16	5.60	14 3/4	9/64	1.60	.15	3 1/8
7/16	.90	7 1/4	1 15/32	5.80	14 7/8	5/32	1.80	.16	3 1/4
15/32	.95	7 1/2	1 1/2	6.00	15	11/64	2.00	.18	3 3/8
1/2	1.00	7 3/4	1 17/32	6.30	15 1/8	3/16	2.20	.20	3 1/2
17/32	1.10	8	1 9/16	6.60	15 1/4	13/64	2.40	.21	3 5/8
9/16	1.20	8 1/4	1 19/32	6.90	15 3/8	7/32	2.65	.23	3 3/4
19/32	1.30	8 1/2	1 5/8	7.20	15 1/2	15/64	2.90	.26	3 7/8
5/8	1.40	8 3/4	1 21/32	7.50	15 5/8	1/4	3.15	.28	4
21/32	1.50	9	1 11/16	7.80	15 3/4	17/64	3.40	.30	4 1/8
11/16	1.60	9 1/4	1 23/32	8.10	15 7/8	9/32	3.65	.32	4 1/4
23/32	1.70	9 1/2	1 3/4	8.40	16	19/64	3.90	.35	4 3/8
3/4	1.85	9 3/4	1 25/32	8.60	16 1/8	5/16	4.20	.37	4 1/2
25/32	2.00	9 7/8	1 13/16	8.80	16 1/4	21/64	4.50	.40	4 5/8
13/16	2.15	10	1 27/32	9.00	16 3/8	11/32	4.80	.42	4 3/4
27/32	2.30	10 1/4	1 7/8	9.20	16 1/2	23/64	5.10	.45	4 7/8
7/8	2.45	10 1/2	1 29/32	9.35	16 1/2	3/8	5.40	.48	5
29/32	2.60	10 5/8	1 15/16	9.50	16 1/2	25/64	5.70	.50	5 1/8
15/16	2.75	10 3/4	1 31/32	9.65	16 1/2	13/32	6.00	.53	5 1/4
31/32	2.90	10 7/8	2	9.80	16 1/2	27/64	6.40	.55	5 3/8
1	3.00	11	2 1/32	10.20	16 1/2	7/16	6.80	.59	5 1/2
1 1/32	3.20	11 1/8	2 1/16	10.60	17	29/64	7.20	.63	5 5/8
1 1/16	3.40	11 1/4	2 1/8	11.20	17	15/32	7.50	.65	5 3/4
1 3/32	3.60	11 3/8	2 1/16	12.00	17	31/64	7.75	.67	5 7/8
1 1/8	3.80	11 1/2	2 1/4	12.80	17 1/2	1/2	8.00	.70	6
1 5/32	4.00	11 5/8	2 5/16	13.60	17 1/2	.....	.....	.....	.....
1 1/16	4.20	12	2 3/8	14.40	18	.....	.....	.....	.....
1 7/32	4.40	12 1/8	2 7/16	15.00	18 1/2	.....	.....	.....	.....
1 1/4	4.50	12 1/2	2 1/2	15.60	19	.....	.....	.....	.....

Above Taper Shank Drills Have Morse Taper Shanks as Follows.

Number	1	2	3	4	5
Diameter ..... inches	1/4 to 9/16	19/32 to 29/32	15/16 to 1 1/4	1 9/32 to 1 31/32	2 to 2 1/2

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TWIST DRILLS.

For Blacksmiths' Drill Presses.

SHANK, ½ INCH DIAMETER, 2½ INCHES LONG.

FIG. 2292.
No. 118.

SHANK, ½ INCH DIAMETER, 2¼ INCHES LONG.

FIG. 2293.
No. 120.

SHANK, ⅝ INCH DIAMETER, 2¼ INCHES LONG.

FIG. 2294.
No. 116.

Twist Drills for Blacksmiths' Drill Presses, Nos. 118 and 120.

Diameter Inches.	Price, No. 118, Each.	Price, No. 120, Each.	Length No. 118, Inches.	Length No. 120, Inches.	Diameter Inches.	Price, No. 118, Each.	Price, No. 120, Each.	Length No. 118, Inches.	Length No. 120, Inches.
1/8	.45	.45	5 1/8	4 7/8	2 7/32	2.30	1.40	10 1/4	6
5/32	.45	.45	5 3/8	4 7/8	1/8	2.45	1.45	10 1/2	6
1/16	.50	.50	5 5/8	5 5/8	2 9/32	2.60	1.50	10 5/8	6
7/32	.55	.55	5 7/8	5 5/8	1 5/16	2.75	1.60	10 3/4	6
1/4	.60	.60	6 1/8	6	3 1/2	2.90	1.70	10 7/8	6
9/32	.65	.65	6 1/4	6	1	3.00	1.80	11	6
5/16	.70	.70	6 3/8	6	1 1/32	3.20	1.90	11 1/8	6
11/32	.75	.73	6 1/2	6	1 1/16	3.40	2.00	11 1/4	6
3/8	.80	.75	6 3/4	6	1 3/32	3.60	2.10	11 1/2	6
13/32	.85	.78	7	6	1 1/8	3.80	2.20	11 3/4	6
7/16	.90	.80	7 1/4	6	1 5/32	4.00	2.25	11 7/8	6
15/32	.95	.83	7 1/2	6	1 3/16	4.20	2.30	12	6
1/2	1.00	.85	7 3/4	6	1 7/32	4.40	2.35	12 1/8	6
17/32	1.10	.88	8	6	1 1/4	4.50	2.40	12 1/4	6
9/16	1.20	.90	8 1/4	6	1 9/32	4.65	2.50	12 1/4	6
19/32	1.30	1.00	8 1/2	6	1 5/16	4.80	2.60	12 3/8	6
5/8	1.40	1.05	8 3/4	6	1 11/32	5.00	2.70	12 3/8	6
21/32	1.50	1.10	9	6	1 3/8	5.20	2.80	12 1/2	6
11/16	1.60	1.15	9 1/4	6	1 13/32	5.40	2.90	12 1/2	6
23/32	1.70	1.20	9 1/2	6	1 7/16	5.60	3.00	12 5/8	6
3/4	1.85	1.25	9 3/4	6	1 15/32	5.80	3.10	12 5/8	6
25/32	2.00	1.30	9 7/8	6	1 1/2	6.00	3.20	12 5/8	6
13/16	2.15	1.35	10	6	.....	.....	.....	.....	.....

Twist Drills for Blacksmiths' Drill Presses, No. 116.

Diameter, Inches.	Price, Each.	Length Inches.	Diameter, Inches.	Price, Each.	Length Inches.	Diameter, Inches.	Price, Each.	Length Inches.	Diameter, Inches.	Price, Each.	Length Inches.
1/8	.55	4 7/8	9/16	1.00	6	1	1.80	6	1 7/16	3.00	6
5/32	.58	4 7/8	19/32	1.03	6	1 1/32	1.90	6	1 1/2	3.10	6
1/16	.60	5 5/8	5/8	1.05	6	1 1/16	2.00	6	1 1/2	3.20	6
7/32	.65	5 5/8	21/32	1.10	6	1 3/32	2.10	6			
1/4	.70	6	11/16	1.15	6	1 1/8	2.20	6	1 9/16	3.40	6
9/32	.73	6	23/32	1.20	6	1 5/32	2.25	6	1 5/8	3.60	5
5/16	.75	6	3/4	1.25	6	1 3/16	2.30	6	1 11/16	3.80	6
11/32	.80	6	25/32	1.30	6	1 7/32	2.35	6	1 3/4	4.05	6
3/8	.85	6	13/16	1.35	6	1 1/4	2.40	6	1 13/16	4.30	6
13/32	.88	6	27/32	1.40	6	1 9/32	2.50	6	1 7/8	4.50	6
7/16	.90	6	7/8	1.45	6	1 5/16	2.60	6	1 15/16	4.75	6
15/32	.93	6	29/32	1.55	6	1 11/32	2.70	6	2	5.00	6
1/2	.95	6	15/16	1.60	6	1 3/8	2.80	6	.....	.....	.....
17/32	.98	6	31/32	1.70	6	1 13/32	2.90	6	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TWIST DRILLS.

SQUARE SHANK RATCHET DRILL.

FIG. 2295.

BIT STOCK DRILL FOR METAL OR WOOD.

FIG. 2296.

Square Shank Ratchet Drills.

Diameter, Inches.	Price, Each.	Length Inches.	Diameter, Inches.	Price, Each.	Length Inches.	Diameter, Inches.	Price. Each.	Length Inches.	Diameter, Inches.	Price, Each.	Length Inches.
1/4	1.00	5	5/8	1.40	6 1/2	1	2.55	8 1/2	1 3/8	4.20	9
9/32	1.05	5	21/32	1.45	6 1/2	1 1/32	2.70	8 1/2	1 13/32	4.35	9
5/16	1.10	5	11/16	1.45	6 1/2	1 1/16	2.85	8 1/2	1 7/16	4.50	9
11/32	1.15	5	23/32	1.50	6 1/2	1 3/32	3.00	8 1/2	1 15/32	4.65	9
3/8	1.20	6	3/4	1.55	6 1/2	1 1/8	3.10	9	1 1/2	4.80	9
13/32	1.25	6 1/2	25/32	1.65	6 1/2	1 5/32	3.25	9	1 9/16	5.10	9
7/16	1.25	6 1/2	13/16	1.75	7	1 3/16	3.35	9	1 5/8	5.40	9
15/32	1.30	6 1/2	27/32	1.90	7	1 7/32	3.50	9	1 11/16	5.75	9
1/2	1.30	6 1/2	7/8	2.05	7 1/2	1 1/4	3.65	9	1 3/4	6.10	9
17/32	1.35	6 1/2	29/32	2.20	7 1/2	1 9/32	3.75	9	1 13/16	6.50	9
9/16	1.35	6 1/2	15/16	2.30	8	1 5/16	3.90	9	1 7/8	6.90	9
19/32	1.40	6 1/2	31/32	2.40	8	1 11/32	4.05	9	1 15/16	7.30	9
.....	.....	.....	.....	.....	.....	.....	.....	.....	2	7.75	9

No. 1 Shanks are 5/8 x 3/8 x 1 1/2 inches long. No. 2 Shanks are 3/4 x 1/2 x 1 3/4 inches long.

Bit Stock Drills for Metal or Wood.

Diameter, Inches.	Price, Per Dozen.	Price, Each.	Length, Inches.	Diameter, Inches.	Price, Per Dozen.	Price, Each.	Length, Inches.
2/32	1.50	.14	3 9/16	1 4/32	8.80	.75	6 1/2
3/32	1.65	.16	4	1 5/32	9.60	.82	6 3/4
4/32	2.10	.20	4	1 6/32	10.30	.87	7
5/32	2.60	.24	4 1/4	1 7/32	11.00	.92	7 1/4
6/32	3.10	.29	4 1/2	9/16	14.35	1.20	7 1/2
7/32	3.60	.33	4 3/4	5/8	16.15	1.35	7 1/2
8/32	4.10	.38	5	1 1/16	17.95	1.50	7 1/2
9/32	4.70	.43	5 1/4	3/4	19.75	1.65	7 1/2
10/32	5.40	.48	5 1/2	1 3/16	21.55	1.80	7 1/2
11/32	6.30	.54	5 3/4	7/8	23.35	1.95	7 1/2
12/32	7.20	.62	6	1 5/16	25.75	2.15	7 1/2
13/32	8.00	.68	6 1/4	1	28.15	2.35	7 1/2

Diameters vary by 64ths.

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THE W. M. PATTISON SUPPLY CO. 849 CLEVELAND

TWIST DRILLS AND BITS, IN SETS.

FIG. 2297.
No. 13.

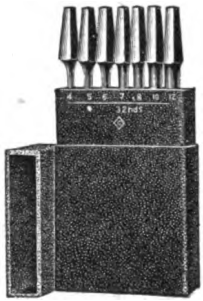

FIG. 2298.
No. 14B.

JEWELERS' CASE.

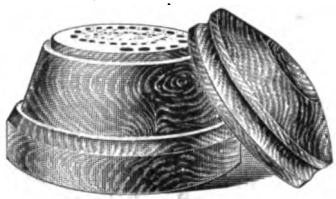

FIG. 2299.
No. 10.

Price, No. 1. Set of Taper Shank Drills $\frac{1}{4}$ to 1 inch, varying by 16ths.....per set	20.00
Price, No. 2. Set of Taper Shank Drills $\frac{3}{8}$ to $1\frac{1}{4}$ in., varying by 16ths.....per set	34.50
Price, No. 3. Set of Taper Shank Drills $\frac{3}{8}$ to $\frac{3}{4}$ in., by 32ds, $\frac{3}{4}$ to $1\frac{1}{4}$ in., by 16ths..per set	42.00
Price, No. 4. Set of Taper Shank Drills $\frac{3}{8}$ to $\frac{3}{4}$ in.. by 32ds, $\frac{3}{4}$ to 2 in., by 16ths...per set	131.00
Price, No. 5. Set Drills, Straight Shanks $\frac{1}{16}$ to $\frac{1}{2}$ in., by 64ths, mounted.....per set	10.00
Price, No. 6. Set Drills, Straight Shanks $\frac{1}{16}$ to $\frac{1}{2}$ in., by 32ds, mounted .....per set	5.40
Price, No. 7. Set Drills, from No. 60. to $\frac{3}{8}$ in., mounted ..... per set	9.90
Price, No. 8. Set Drills, Steel Wire Gauge, from No. 1 to 60, mounted...per set	8.10
Price, No. 9. Half Set Drills, alternate Nos. from 1 to 59, mounted.....per set	4.30
Price, No. 10. Jewelers' Set of 36 Drills, No. 30 ($\frac{1}{8}$ inch) to No. 65, Steel Wire Gauge, mounted in a Mahogany case with cap.....per set	4.25
Price, No. 11. Set of Taper Shank Drills, $\frac{3}{8}$ to 2 in., by 32ds.....per set	240.00
Price, No. 12. Set Machine Bits, $\frac{1}{8}$ in. to $\frac{1}{2}$ in. mounted, varying by 32ds...per set	7.00
Price, No. 13. Set Bit Stock Drills, $\frac{1}{16}$ to $\frac{1}{4}$ by 32ds, $\frac{1}{4}$ to $\frac{3}{8}$ by 16ths, boxed..per set	2.75
Price, No. 13. A. Set of Bit Stock Wood Bits, $\frac{2}{32}$ to $\frac{12}{32}$ by 32ds, boxed.....per set	2.00
Price, No. 13. B. Set of Bit Stock Wood Bits, $\frac{1}{8}$, $\frac{5}{32}$, $\frac{3}{16}$, $\frac{7}{32}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, boxed..per set	1.90
Price, No. 14. B. Set of Bit Stock Drills for Metal or Wood, $\frac{1}{8}$, $\frac{5}{32}$, $\frac{3}{16}$, $\frac{7}{32}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, boxed..per set	2.65
Price, Set of Drills for Case $93\frac{1}{2}$-A.....per set	8.62
Price, Set of Drills for Case $93\frac{1}{2}$-B.....per set	10.85
Price, Set of Drills for Case $93\frac{1}{2}$-C.....per set	31.15
Price, No. 80. Set Drills, Steel Wire Gauge, from No. 1 to 60, mounted...per set	9.75

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CENTER DRILLS, REAMERS, COUNTERSINKS, ETC.

CENTER DRILL.

FIG. 2300.

CENTER REAMERS.

FIG. 2301.
No. 1.

FIG. 2302.
No. 2.

Center Drills.

Diameter.....inches	1/16	5/64	3/32	7/64	1/8	9/64	5/32
Price.....per dozen	.80	.90	1.10	1.20	1.25	1.35	1.50
Length.....inches	1	1	1¼	1¼	1¼	1¼	1½
Diameter.....inches	11/64	3/16	13/64	7/32	15/64	1/4	17/64
Price.....per dozen	1.70	1.90	2.10	2.35	2.60	2.85	3.10
Length.....inches	1½	1½	1½	1½	1½	1½	1½

Center Reamers.

Size Shank.....inches	3/16	1/4	5/16	3/8	1/2
Size, Body.....inches	1/4	3/8	1/2	5/8	3/4
Price, No. 1.....each	.25	.30	.35	.75	
Price, No. 1.....per dozen	2.90	3.25	3.75	8.50	
Price, No. 2.....each	.22	.25	.30	.70	
Price, No. 2.....per dozen	2.50	2.90	3.25	8.00	

DRILL AND COUNTERSINK COMBINED.

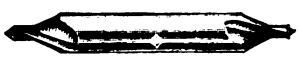

FIG. 2303.

BIT STOCK COUNTERSINK.

FIG. 2304.

Drill and Countersink Combined.

	A	B	C	D	E	F	G
Size							
Price.....per dozen	1.50	1.50	1.50	1.50	1.50	3.00	3.00
Diameter of Body.....inches	.203	.301	.301	.234	.234	.436	.436
Diameter of Drill.....inches	1/16	1/8	3/32	No. 49	No. 45	5/32	3/16

Bit Stock Countersink.

Diameter.....inches	3/16	1/4	5/8	3/4	7/8	1
Price.....each	.50	.60	.75	.90	1.05	1.20
Full Length.....inches	4½	4½	4½	5	5	5

FLAT AND PIPE DRILLS.

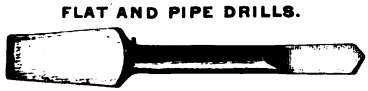

FIG. 2305.

Size.....inches	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1
Price, Flat Drills...each	.40	.40	.40	.40	.40	.45	.45	.45
Price Pipe Drills...each	.91	.91	.95	.98	.....	1.04	.....	1.14
Size.....inches	1⅛	1¼	1⅜	1½	1¾	2	2½	3
Price, Flat Drills...each	.50	.55	.60	.65	.75	1.00	1.00	.....
Price, Pipe Drills...each	.....	1.23	.....	1.35	.....	1.56	1.80	3.25

Flat Drills are 6 inches long.

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COUNTERSINKS AND REAMERS.

COUNTERSINKS.

FIG. 2306.

FIG. 2307.

FIG. 2308.

Countersinks.

Diameter..... ...inches	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{3}{4}$
Angle.....degrees	25	25	60	80	60	80
Price.....each	.50	.50	.50	.50	.75	.75

Round Shanks are either $\frac{1}{2}$ or $\frac{1}{64}$ inches diameter.

BURRING AND COUNTERSINKING REAMER.

FIG. 2309.

Burring and Countersinking Reamers.

Price, Diameter at point, 0. At largest part and length of Fluting $\frac{5}{8}$ inches.. .....each	.50
Price, Round $\frac{1}{2}$ inch Round Shank, other dimensions as above.....each	.50

BURRING REAMER.

FIG. 2310

BOLT REAMER.

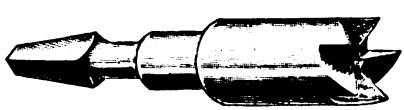

FIG. 2311.

Burring Reamers.

Price, Diameter at point, $\frac{7}{16}$ inches. At largest part, $1\frac{1}{4}$ inches. Length of Fluting $1\frac{3}{8}$ inches.....each	1.25
Price, Round $\frac{1}{2}$ inch Shank, other dimensions as above.....each	1.25

Bolt Reamers.

Price to round over bars to $\frac{1}{2}$ inch.....each	.75

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

MACHINE BITS FOR WOOD.

TAPER SHANK.

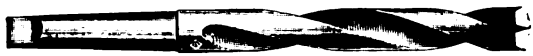

FIG. 2312.

STRAIGHT SHANK.

FIG. 2313.

Taper and Straight Shank Machine Bits, for Wood.

Diameter, Inches.	Price, Each.	Length, Fig. 2312, Inches.	Length, Fig. 2313, Inches.	Diameter, Inches.	Price, Each.	Length, Fig. 2312, Inches.	Length, Fig. 2313, Inches.
1/8	.50	4 9/16	5 1/8	19/32	1.50	8 1/2	8 1/2
5/32	.50	4 13/16	5 3/8	5/8	1.60	8 3/4	8 3/4
9/16	.60	5 1/16	5 5/8	21/32	1.70	9	9
7/32	.60	5 5/16	5 7/8	11/16	1.80	9 1/4	9 1/4
1/4	.70	6 1/8	6 1/8	23/32	1.90	9 1/2	9 1/2
9/32	.75	6 1/4	6 1/4	3/4	2.00	9 3/4	9 3/4
5/16	.80	6 3/8	6 3/8	25/32	2.20	.. ..	9 7/8
11/32	.85	6 1/2	6 1/2	13/16	2.40	.....	10
3/8	.90	6 3/4	6 3/4	27/32	2.50	.....	10 1/4
13/32	.95	7	7	7/8	2.60	.....	10 1/2
7/16	1.00	7 1/4	7 1/4	29/32	2.80	.....	10 5/8
15/32	1.10	7 1/2	7 1/2	1 1/8	3.00	.....	10 3/4
1/2	1.20	7 3/4	7 3/4	31/32	3.20	.....	10 7/8
17/32	1.30	8	8	1	3.40	.....	11
9/16	1.40	8 1/4	8 1/4	.....	.....	.....	....

Above Taper Shank Bits Have Taper Shank as follows.

Number	1	2
Diameter ..... inches	1/8 to 9/16	19/32 to 3/4

Straight Shank Bits have Shanks 1/2 x 2 1/2 inches long.

STRAIGHT SHANK MACHINE BITS, FOR WOOD.

FIG. 2314.

Diameter, Inches,	Price, Each.	Length, Inches	Diameter, Inches.	Price, Each.	Length, Inches
1/8	.20	3	19/32	.80	5 1/4
5/32	.25	3 1/4	1/2	.85	6
9/16	.30	3 1/2	17/32	.95	6 1/4
7/32	.35	3 3/4	9/16	1.00	6 1/2
1/4	.40	4	5/8	1.15	6 1/2
9/32	.45	4 1/4	11/16	1.35	7
5/16	.50	4 1/2	3/4	1.65	7 1/2
11/32	.55	4 3/4	13/16	1.95	8
3/8	.65	5	7/8	2.30	8 1/2
13/32	.70	5 1/4	15/16	2.65	9
7/16	.75	5 1/2	1	3.00	9 1/2

Price per set, with Bit Point, 1/8 inch to 1/2 inch mounted, varying by 32ds, 7.00.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

WOOD BITS AND CHUCK DRILLS.

WOOD CHUCK DRILL.

FIG. 2315.

Wood Chuck Drills.

Number.	Diameter Inches.	Price, Per Dozen.	Price, Each.	Length Inches.	Number.	Diameter Inches.	Price, Per Dozen.	Price, Each.	Length Inches.
2	1/16	1.00	.09	2½	12	3/8	5.40	.48	5
3	3/32	1.20	.11	2¾	13	13/32	6.00	.53	5¼
4	1/8	1.45	.13	3	14	7/16	6.80	.59	5½
5	5/32	1.80	.16	3¼	15	15/32	7.50	.65	5¾
6	3/16	2.20	.20	3½	16	1/2	8.00	.70	6
7	7/32	2.65	.23	3¾	17	17/32	10.00	.85	6
8	1/4	3.15	.28	4	18	9/16	10.50	.90	6
9	9/32	3.65	.32	4¼	19	19/32	11.00	.95	6
10	5/16	4.20	.37	4½	20	5/8	12.25	1.05	6
11	11/32	4.80	.42	4¾	.....	.....	.....	.....	.....

WOOD BITS FOR BRACE.

FIG. 2316.

Number.	Price, Per Dozen.	Price, Each.	Number.	Price, Per Dozen.	Price, Each.	Number.	Price, Per Dozen.	Price, Each.
2	1.60	.15	11	4.00	.35	19	6.00	.55
3	1.60	.15	12	4.00	.35	20	6.00	.55
4	1.60	.15	13	4.50	.40	22	6.50	.60
5	1.75	.18	14	4.50	.40	24	7.00	.65
6	2.00	.20	15	5.00	.45	26	7.50	.70
7	2.50	.22	16	5.00	.45	28	8.00	.75
8	3.00	.25	17	5.50	.50	30	9.00	.85
9	3.50	.30	18	5.50	.50	32	10.00	.95
10	3.50	.30	.....	.....	.....	.....	.....	.....

The numbers of Wood Bits for Brace indicate the sizes in 32ds of an inch.

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BELL HANGER'S AND ELECTRICIAN'S BITS.

BELL HANGER'S AND ELECTRICIAN'S BIT.

FIG. 2317.

Number.	12 Inch.		18 Inch.		24 Inch.		30 Inch.		36 Inch.	
	Price, Per Dozen.	Price, Each.	Price, Per Dozen.	Price, Each.	Price, Per Dozen.	Price, Each.	Price, Per Dozen.	Price, Each.	Price, Per Dozen.	Price, Each.
6	5.00	.50	7.00	.70	9.00	.90	11.00	1.10	13.00	1.30
8	5.00	.50	7.00	.70	9.00	.90	11.00	1.10	13.00	1.30
10	5.50	.55	7.50	.75	9.50	.95	12.00	1.20	13.00	1.30
12	6.00	.60	8.00	.80	10.00	1.00	12.00	1.20	13.00	1.30
14	7.00	.70	9.00	.90	11.00	1.10	13.00	1.30	14.00	1.40
16	8.00	.80	10.00	1.00	12.00	1.20	14.00	1.40	15.00	1.50
18	9.00	.90	11.00	1.10	13.00	1.30	15.00	1.50	16.00	1.60
20	10.00	1.00	12.00	1.20	14.00	1.40	15.00	1.50	16.00	1.60
22	11.00	1.10	13.00	1.30	15.00	1.50	16.00	1.60	17.00	1.70
24	12.00	1.20	14.00	1.40	16.00	1.60	17.00	1.70	18.00	1.80
26	13.00	1.30	15.00	1.50	17.00	1.70	18.00	1.80	18.00	1.80
28	14.00	1.40	16.00	1.60	18.00	1.80	19.00	1.90	19.00	1.90
30	15.00	1.50	17.00	1.70	19.00	1.90	20.00	2.00	20.00	2.00
32	16.00	1.60	18.00	1.80	20.00	2.00	20.00	2.00	20.00	2.00
34	17.00	1.70	19.00	1.90	20.00	2.00	20.00	2.00	20.00	2.00
36	18.00	1.80	20.00	2.00	21.00	2.10	21.00	2.10	21.00	2.10

ELECTRICIAN'S BIT AND FISH WIRE COMBINED.

FIG. 2318.

Number.	12 Inch.		18 Inch.		24 Inch.		30 Inch.		36 Inch.	
	Price, Per Dozen.	Price, Each.	Price, Per Dozen.	Price, Each.	Price, Per Dozen.	Price, Each.	Price, Per Dozen.	Price, Each.	Price, Per Dozen.	Price, Each.
6	6.20	.65	8.50	.85	11.00	1.10	13.50	1.35	16.00	1.60
8	6.25	.65	8.75	.90	11.25	1.15	13.75	1.40	16.25	1.65
10	6.75	.70	9.25	.95	11.75	1.20	14.25	1.45	16.75	1.70
12	7.50	.75	10.00	1.00	12.50	1.25	15.00	1.50	17.50	1.75
14	8.55	.85	11.00	1.10	13.50	1.35	16.00	1.60	18.25	1.85
16	10.00	1.00	12.50	1.25	15.00	1.50	17.50	1.75	19.50	1.95
18	11.25	1.15	13.75	1.40	16.25	1.65	18.75	1.90	21.00	2.10
20	12.50	1.25	15.00	1.50	17.50	1.75	19.50	1.95	22.00	2.20
22	13.75	1.40	16.25	1.65	18.75	1.85	20.75	2.10	23.00	2.30
24	15.00	1.50	17.50	1.75	20.00	2.00	22.00	2.20	24.00	2.40

By means of holes drilled through the center web of these bits, electricians can fish their wires without the use of a secondary tool for that purpose. All bits up to an including $\frac{19}{32}$ inch diameter have "fish holes" for No. 14 Wire, after the insulation has been removed. Larger bits will be provided with larger holes, if required. All our bits are made from the best steel, and are the finest finished tools on the market.

The numbers indicate the sizes in 32ds of an inch.

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SOCKETS FOR TAPER SHANK DRILLS.

THE W. M. PATTISON SUPPLY CO. CLEVELAND

ROUGH.

FIG. 2319.

No. 100.

No. 100 or Rough.

Number	1	2	3	4	5	6
Size Holds.....inches	$\frac{1}{4}$ to $\frac{9}{16}$	$\frac{19}{32}$ to $\frac{29}{32}$	$1\frac{5}{16}$ to $1\frac{1}{4}$	$1\frac{9}{32}$ to 2	$2\frac{1}{16}$ to 3	$3\frac{1}{16}$ to 4
Price.....each	1.20	1.80	2.50	4.00	7.50	14.00

FITTED.

FIG. 2320.

No. 102.

SLEEVE.

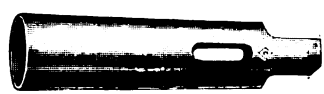

FIG. 2321.

No. 104.

No. 102 or Fitted.

Number	1	1	2	2	3	4	5
Shank Fitted to Socket...Number	2	3	3	4	4	5	6
Price.....each	2.00	2.00	2.50	3.20	3.20	4.80	12.00

No. 104 or Sleeve.

Number	1	1	1	2	2	3	4	5
Fitted to Socket....Number	2	3	4	3	4	4	5	6
Price.....each	1.80	1.80	3.00	2.40	3.00	3.00	4.40	10.00

IMPROVED GRIP SOCKET.

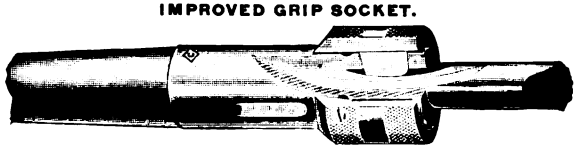

FIG. 2322.

Size Hole, Number.	Price, Style A, With Rough Shank. Each.	Size Hole, Number.	Fitted to Number.	Price, Style B, With Fitted Shank. Each.	Size Hole, Number.	Fitted to Number.	Style B, With Fitted Shank. Each.
1	4.00	1	2 or 3	4.50	1	4	5.25
2	5.00	2	3	5.50	1	5	8.50
3	6.50	3	4	7.00	2	4	6.75
4	9.25	4	5	10.00	2	5	9.00
5	10.25	5	6	14.50	3	5	9.50

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

DRILL SOCKETS AND HOLDERS.

FLAT DRILL SOCKET.

FIG. 2323.

Number	1	2	3
Price, each	1.75	1.75	2.00

DRILL HOLDER.

FIG. 2324.

SLEEVE HOLDER.

FIG. 2325.

Drill Holders.

Number	1	2	3	4
Price, each	.80	1.00	1.20	1.40
Holds Drills, inches	$\frac{1}{4}$ to $\frac{9}{16}$	$\frac{13}{32}$ to $\frac{29}{32}$	$\frac{13}{16}$ to $1\frac{1}{4}$	$1\frac{9}{32}$ to 2
Length, inches	$8\frac{1}{2}$	10	$11\frac{3}{4}$	$14\frac{1}{2}$
Weight, pounds	$\frac{1}{2}$	1	2	4

Sleeve Holders.

Number	1	2	3
Price, each	.80	.90	1.00

Sleeves Fitted to Holders.

Price, No. 1 Sleeve fitted to No. 2 or 3 Sleeve, or No. 1 Holder, each	1.80
Price, No. 2 Sleeve fitted to No. 3 Sleeve or No. 2 Holder, each	2.40
Price, No. 3 Sleeve fitted to No. 3 Holder, each	3.00

Drifts.

Price, 7 inches long, finished and case hardened, each	.25

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THE W. M. PATTISON SUPPLY CO. 857 CLEVELAND

DRILL LIST.

For Taps with "V" Threads.

Diameter of Tap.	Threads per Inch.	Size of Drill.	Diameter of Tap.	Threads per Inch.	Size of Drill.	Diameter of Tap.	Threads per Inch.	Size of Drill.
3/32	48	50	13/32	16	P	31/32	9	13/16
3/32	56	49	13/32	18	21/64	1	8	53/64
3/32	60	48	7/16	14	R	1 1/32	8	55/64
7/64	32	50	7/16	16	S	1 1/16	8	57/64
7/64	36	49	15/32	14	3/8	1 3/32	8	59/64
7/64	40	47	15/32	16	W	1 1/8	7	59/64
1/8	32	44	1/2	12	25/64	1 1/8	8	61/64
1/8	36	43	1/2	13	X	1 5/32	7	61/64
1/8	40	42	1/2	14	13/32	1 5/32	8	63/64
9/64	30	41	17/32	12	27/64	1 3/16	7	63/64
9/64	32	40	17/32	13	27/64	1 3/16	8	1 1/64
9/64	36	37	17/32	14	7/16	1 7/32	7	1 1/64
5/32	30	33	9/16	12	29/64	1 7/32	8	1 3/64
5/32	32	32	9/16	14	15/32	1 1/4	7	1 3/64
5/32	36	31	19/32	12	31/64	1 9/32	7	1 5/64
3/16	24	29	19/32	14	1/2	1 5/16	7	1 7/64
3/16	30	27	5/8	10	33/64	1 1 1/32	7	1 9/64
3/16	32	27	5/8	11	1/2	1 3/8	6	1 1/8
7/32	24	20	5/8	12	33/64	1 1 3/32	6	1 5/32
7/32	30	16	21/32	10	33/64	1 7/16	6	1 3/16
7/32	32	15	21/32	11	17/32	1 1 5/32	6	1 7/32
1/4	18	17	21/32	12	35/64	1 1/2	6	1 1 7/64
1/4	20	14	3/4	10	39/64	1 1 7/32	6	1 1 9/64
1/4	24	9	3/4	11	5/8	1 5/8	5	1 2 1/64
9/32	18	18/64	3/4	12	41/64	1 2 1/32	5	1 2 3/64
9/32	20	3	25/32	10	41/64	1 3/4	5	1 2 9/64
5/16	16	1	25/32	11	21/32	1 2 5/32	5	1 3 1/64
5/16	18	15/64	25/32	12	43/64	1 1 3/16	5	1 3 3/64
5/16	20	E	13/16	10	43/64	1 2 7/32	5	1 3 5/64
11/32	16	F	27/32	10	45/64	1 7/8	4 1/2	1 3 5/64
11/32	18	7/64	7/8	9	23/32	1 2 9/32	4 1/2	1 3 7/64
3/8	14	J	7/8	10	47/64	1 1 5/16	4 1/2	1 3 9/64
3/8	16	L	29/32	9	3/4	1 3 1/32	4 1/2	1 4 1/64
3/8	18	19/64	29/32	10	49/64	2	4 1/2	1 4 3/64
13/32	14	N	15/16	9	25/32	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. 858 CLEVELAND

DRILL LIST.

For Taps with U. S. Standard Threads.

$\frac{1}{4}$	20	$\frac{3}{16}$	$\frac{7}{8}$	9	$\frac{47}{64}$	$1\frac{7}{8}$	5	$1\frac{5}{8}$
$\frac{5}{16}$	18	C	1	8	$\frac{15}{16}$	2	$4\frac{1}{2}$	$1\frac{3}{4}$
$\frac{3}{8}$	16	N	$1\frac{1}{8}$	7	$\frac{1}{64}$	$2\frac{1}{8}$	$4\frac{1}{2}$	$1\frac{7}{8}$
$\frac{7}{16}$	14	S	$1\frac{1}{4}$	7	$1\frac{5}{64}$	$2\frac{1}{4}$	$4\frac{1}{2}$	$1\frac{7}{8}$
$\frac{1}{2}$	13	$\frac{1}{4}$	$1\frac{3}{8}$	6	$1\frac{11}{64}$	$2\frac{3}{8}$	4	$2\frac{1}{16}$
$\frac{9}{16}$	12	$\frac{5}{16}$	$1\frac{1}{2}$	6	$1\frac{17}{64}$	$2\frac{1}{2}$	4	$2\frac{1}{16}$
$\frac{5}{8}$	11	$\frac{3}{8}$	$1\frac{5}{8}$	$5\frac{1}{2}$	$1\frac{23}{64}$	.....	.....	.....
$\frac{3}{4}$	10	$\frac{7}{16}$	$1\frac{3}{4}$	5	$1\frac{1}{2}$	.....	.....	.....

For Machine Screw Taps.

Size of Tap.	Size of Drill for Outside Diameter of Screw.	Size of Drill for Tapping Hole.	Size of Tap.	Size of Drill for Outside Diameter of Screw.	Size of Drill for Tapping Hole.	Size of Tap.	Size of Drill for Outside Diameter of Screw.	Size of Drill for Tapping Hole.
2x48		50	9x24		30	16x16		12
2x56	44	49	9x28	16	28	16x18	I	8
2x64		48	9x30		28	16x20		7
3x40		49	9x32		26	17x16		8
3x48	39	47	10x24		26	17x18	L	4
3x56		45	10x30	11	24	17x20		3
4x32		46	10x32		24	18x16		2
4x36	33	44	11x24		21	18x18	$\frac{19}{64}$	2
4x40		43	11x28	6	20	18x20		1
5x30		43	11x30		19	19x16		1
5x32	$\frac{1}{8}$	42	12x20		24	19x18	$\frac{5}{16}$	B
5x36		41	12x22		20	19x20		C
5x40		38	12x24	$\frac{7}{32}$	19	20x16		C
6x30		38	12x28		18	20x18	P	E
6x32	28	37	13x20		17	20x20		F
6x36		36	13x22	$\frac{15}{64}$	17	22x16	S	H
6x40		35	13x24		15	22x18		J
7x28		34	14x20		15	24x14		L
7x30	24	33	14x22	$\frac{1}{4}$	11	24x16	$\frac{3}{8}$	M
7x32		32	14x24		10	24x18		N
8x24		31	15x18		12	26x14		O
8x30	19	31	15x20	F	10	26x16	$\frac{13}{32}$	P
8x32		30	15x22		8	28x14		R
.....	.....	.....	15x24		7	28x16	$\frac{7}{16}$	S
.....	.....	.....	.....	.....	.....	30x14		U
.....	.....	.....	.....	.....	.....	30x16	$\frac{29}{64}$	V

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THE W. M. PATTISON SUPPLY CO. 859 CLEVELAND

THE SPEED OF DRILLS.

This table has been compiled from memoranda furnished us at our request from about 500 of the best known and most successful manufacturers in this country. We believe that these speeds should not be exceeded under ordinary circumstances. A feed of one inch in from 95 to 125 revolutions is all that should be required according to the size of the drill. At these speeds it will be necessary to use plenty of oil, or a solution of oil, potash and water, when drilling steel, wrought or malleable iron.

It is based on a speed of periphery of the drill of 30 feet per minute for steel, 35 feet per minute for iron, and 60 feet per minute for brass. It will be found advisable to vary the speed given in the table somewhat, according, as the material to be drilled is more or less refractory.

Diameter, of Drill, Inches.	Speed for Soft Steel, Revolutions PerMinute.	Speed for Iron, Revolutions PerMinute.	Speed for Brass, Revolutions PerMinute.	Diameter, of Drill. Inches.	Speed for Soft Steel, Revolutions, PerMinute.	Speed for Iron, Revolutions PerMinute.	Speed for Brass, Revolutions PerMinute.
1/16	1824	2128	3648	1 1/16	108	125	215
1/8	912	1064	1824	1 1/8	102	118	203
3/16	608	710	1216	1 3/16	96	112	192
1/4	456	532	912	1 1/4	91	106	182
5/16	365	425	730	1 5/16	87	101	174
3/8	304	355	608	1 3/8	83	97	165
7/16	260	304	520	1 7/16	80	93	159
1/2	228	266	456	1 1/2	76	89	152
9/16	203	236	405	1 9/16	73	85	145
5/8	182	213	365	1 5/8	70	82	140
11/16	166	194	332	1 11/16	68	79	135
3/4	152	177	304	1 3/4	65	76	130
13/16	140	164	280	1 13/16	63	73	125
7/8	130	152	260	1 7/8	60	71	122
15/16	122	142	243	1 15/16	59	69	118
1	114	133	228	2	57	67	114

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TAPS.

Machinist's Hand Taps.

TAPER.

FIG. 2326.

PLUG.

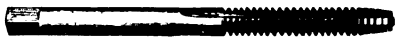

FIG. 2327.

BOTTOMING.

FIG. 2328.

With "V" Threads.

Diameter, Inches.	Standard Number of V Threads to Inch.	Threads also Furnished.	Price, Each.	Price, Per Set.
$\frac{1}{16}$	72	.....60, 64	.35	1.05
$\frac{5}{64}$	72	.....56, 60, 64	.35	1.05
$\frac{3}{32}$	56	.....48, 50, 52, 54, 60	.35	1.05
$\frac{7}{64}$	56	.....48, 50, 60	.35	1.05
$\frac{1}{8}$	40	.....27, 32, 36, 44, 48	.35	1.05
$\frac{9}{64}$	40	.....30, 32, 36	.35	1.05
$\frac{5}{32}$	32	.....30, 36, 40	.35	1.05
$\frac{11}{64}$	32	.....36, 40	.35	1.05
$\frac{3}{16}$	24	.....22, 28, 32, 36	.35	1.05
$\frac{13}{64}$	24	..... 22, 28, 32, 36	.35	1.05
$\frac{7}{32}$	24	.....28, 30, 32, 36	.35	1.05
$\frac{15}{64}$	24	.....28, 32, 36	.35	1.05
$\frac{1}{4}$	20	...18, 22, 24, 26, 28, 32	.45	1.35
$\frac{17}{64}$	20	...18, 22, 24, 26, 28, 32	.45	1.35

With U. S. Standard Threads.

Diameter, Inches.	Standard Number of Threads to Inch.	Threads also Furnished.	Price, Each.	Price, Per Set.
$\frac{1}{16}$	64	60	.35	1.05
$\frac{3}{32}$	50	.....48, 56, 60	.35	1.05
$\frac{1}{8}$	40	.....44, 48	.35	1.05
$\frac{5}{32}$	36	.....32, 40	.35	1.05
$\frac{3}{16}$	32	.....22, 24, 36	.35	1.05
$\frac{7}{32}$	28	..... .24, 32, 36	.35	1.05
$\frac{1}{4}$	20	.....18, 22, 24, 26	.45	1.35

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THE W. M. PATTISON SUPPLY CO. 861 CLEVELAND

TAPS.

Machinists' Hand Taps.

TAPER.

FIG. 2329.

PLUG.

FIG. 2330.

BOTTOMING.

FIG. 2331.

Diameter, Inches.	Standard No. V Threads to Inch.	V Threads also Furnished	Price, Each.	Price, per Set.
1/4	20	16, 18, 22, 24, 26, 27, 28, 30, 32	.45	1.35
5/16	18	16, 20, 22, 24, 26, 27, 28, 30, 32	.50	1.50
3/8	16	14, 18, 20, 22, 24, 26, 27, 28, 30, 32	.55	1.65
7/16	14	12, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32	.60	1.80
1/2	12	13, 14, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32	.70	2.10
9/16	12	14, 20, 22, 24, 26, 27	.80	2.40
5/8	11	10, 12, 14, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32	.90	2.70
11/16	11	10, 12, 20, 22, 24 26	1.05	3.15
3/4	10	12, 20, 22, 24, 26, 27, 28	1.20	3.60
13/16	10	12	1.40	4.20
7/8	9	10, 12, 20, 22, 24, 26, 27	1.60	4.80
15/16	9		1.80	5.40
1	8	12. 20, 22, 24, 26, 27	2.00	6.00
1 1/8	7	8	2.25	6.75
1 1/4	7		2.60	7.80
1 3/8	6		3.00	9.00
1 1/2	6		3.50	10.50
1 5/8	5	5½	4.20	12.60
1 3/4	5		5.00	15.00
1 7/8	4½	5	5.80	17.40
2	4½		6.70	20.10
2 1/8	4½		8.00	24.00
2 1/4	4½		9.20	27.60
2 3/8	4½		10.50	31.50
2 1/2	4		11.50	34.50
2 5/8	4		13.00	39.00
2 3/4	4		14.00	42.00
2 7/8	4		15.50	46.50
3	3½		17.00	51.00
3 1/8	3½		18.75	56.25
3 1/4	3½		20.50	61.50
3 3/8	3¼		22.00	66.00
3 1/2	3¼		24.00	72.00
3 5/8	3¼		26.00	78.00
3 3/4	3		28.50	85.50
3 7/8	3		30.00	90.00
4	3		32.50	97.50

Hand Taps, with left-hand threads, ¼ to 2 inches diameter, at same list price as right-hand threads.

Taps ordered over-size, up to 1/32 of an inch, will be charged as regular sizes.

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THE W. M. PATTISON SUPPLY CO. 862 CLEVELAND

TAPS.

MACHINE OR NUT TAP.

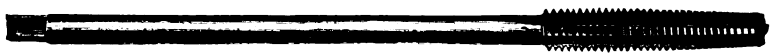

FIG. 2332.

Diameter, Inches.	Standard No. of V Threads to Inch.	V Threads also Furnished.	Length Over All. Inches.	Price, Each.
1/4	20	16, 18	5	.60
5/16	18	16	5½	.70
3/8	16	14, 18	6½	.80
7/16	14	12, 16	7	.90
1/2	12	13, 14	7½	1.00
9/16	12	14	8	1.15
5/8	11	10, 12	8½	1.30
11/16	11	12	9	1.45
3/4	10		9½	1.60
13/16	10		10	1.80
7/8	9	10	10½	2.10
15/16	9		11	2.40
1	8		11½	2.80
1 1/8	7	8	12	3.20
1 1/4	7	8	12½	3.70
1 3/8	6		13	4.20
1 1/2	6		13½	4.70
1 5/8	5	5½	14	5.30
1 3/4	5		14½	6.00
1 7/8	4½	5	15	6.80
2	4½		15½	7.70
2 1/8	4½		16	9.00
2 1/4	4½		16½	10.20
2 3/8	4½		17	11.50
2 1/2	4		17½	12.50
2 5/8	4		18	14.00
2 3/4	4		18½	15.00
2 7/8	4		19	16.50
3	3½		19½	18.00
3 1/8	3½		20	19.75
3 1/4	3½		20½	21.50
3 3/8	3¼		20½	23.00
3 1/2	3¼		21	25.00
3 5/8	3¼		21	27.00
3 3/4	3		21	29.50
3 7/8	3		21	31.00
4	3		21	33.50

Nut Taps, with left-hand Threads, ¼ to 2 inches diameter, are listed at same price as right-hand threads.

Taps ordered over-size, up to 1/32 of an inch, will be charged as regular sizes.

Nut Taps are sent even-size, unless over-size is called for.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TAPS.

TAPPER TAP.

FIG. 2333.

Diameter, Inches.	Number of V Threads to Inch.	Length of Thread in Inches.	PRICE, EACH.		WHOLE LENGTH.	
			11 Inch.	12 Inch.	14 Inch.	15 Inch.
1/4	20	1 3/4	.70	.75	.80	.90
5/16	18	2	.80	.85	.90	1.00
3/8	16	2	.90	.95	1.00	1.10
7/16	14	2 1/4	1.00	1.05	1.15	1.25
1/2	12, 13	2 1/4	1.12	1.15	1.25	1.35
9/16	12	2 1/2	1.30	1.35	1.45	1.55
5/8	11	2 1/2	1.45	1.50	1.65	1.75
11/16	11	2 1/2	1.62	1.70	1.80	1.95
3/4	10	2 3/4	1.80	1.85	2.00	2.10
13/16	10	2 3/4	2.05	2.10	2.25	2.35
7/8	9	3	2.35	2.45	2.60	2.75
15/16	9	3	2.70	2.75	3.00	3.15
1	8	3 1/2	3.15	3.20	3.50	3.65
1 1/16	7	3 1/2	3.60	3.70	3.95	4.10
1 1/4	7	3 1/2	4.15	4.25	4.50	4.65
1 3/8	6	4	4.70	4.80	5.05	5.20
1 1/2	6	4	5.30	5.40	5.65	5.80

PULLEY TAP.

FIG. 2334.

Diameter, Inches.	Number of V Threads to Inch.	PRICE, EACH.									
		6 Inch.	8 Inch.	10 Inch.	12 Inch.	14 Inch.	16 Inch.	18 Inch.	20 Inch.	22 Inch.	24 Inch.
1/4	20	.65	.70	.80	.90	.....	.....	.....	.....	.....	.....
5/16	18	.75	.80	1.00	1.20	.....	.....	.....	.....	.....	.....
3/8	16	.80	.90	1.10	1.30	1.40	1.55	1.70	.....	.....	.....
7/16	14	.90	1.00	1.20	1.40	1.50	1.65	1.80	.....	.....	.....
1/2	12, 13	1.00	1.15	1.30	1.45	1.60	1.75	1.90	2.05	.....	.....
9/16	12	1.10	1.30	1.45	1.55	1.70	1.85	2.05	2.20	2.35	.....
5/8	11	1.20	1.35	1.50	1.60	1.75	1.90	2.10	2.25	2.40	2.55
11/16	11	1.30	1.45	1.55	1.70	1.90	2.05	2.20	2.35	2.50	2.65
3/4	10	1.40	1.50	1.60	1.80	2.00	2.15	2.30	2.45	2.60	2.75
13/16	10	1.60	1.70	1.80	2.00	2.15	2.30	2.45	2.60	2.75	2.90
7/8	9	1.80	1.90	2.10	2.30	2.50	2.70	2.90	3.10	3.30	3.50
15/16	9	2.00	2.10	2.30	2.50	2.70	2.90	3.10	3.30	3.50	3.70
1	8	2.25	2.30	2.50	2.70	2.90	3.10	3.30	3.50	3.70	3.90

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THE W. M. PATTISON SUPPLY CO. 864 CLEVELAND

TAPS.

MACHINE SCREW TAP.

FIG. 2335.

STOVE BOLT TAP.

FIG. 2336.

Machine Screw Taps.

Size of Screw Gauge. Number.	Approximate Size in Inches.	Standard No. of Threads.	Threads also Furnished.	PRICE. Each.	PRICE. Per Dozen.
1	1/16	.....	.....56, 60, 64, 72	.35	4.00
1½		.....	56	.35	4.00
2	5/64	56	.....48, 64	.35	4.00
3		48	.....40, 44, 56	.35	4.00
4	7/64	36	.....30, 32, 40, 42, 44, 48	.35	4.00
5		36	.....30, 32, 40, 44, 48	.35	4.00
6	9/64	32	.....30, 36, 38, 40, 44, 48	.35	4.00
7		32	.....24, 28, 30, 36, 40	.35	4.00
8	5/32	32	.....24, 30, 36, 40, 44	.35	4.00
9		30	....24, 28, 32	.35	4.00
10	3/16	24	.....20, 22, 28, 30, 32, 36	.35	4.00
11		24	.....22, 28, 30	.35	4.00
12	7/32	24	20, 22, 26, 28, 30, 32, 34, 36	.35	4.00
13		22	.....20, 24, 32	.38	4.40
14	1/4	20	.....16, 18, 22, 24, 26	.38	4.40
15		20	.....18, 22, 24	.38	4.40
16	17/64	18	.....16, 20, 22, 24, 26	.38	4.40
17		18	.....16, 20	.38	4.40
18	9/32	18	.....16, 20, 22, 24, 26	.38	4.40
19		18	.....16, 20, 22, 24	.38	4.40
20	5/16	16	.....18, 20, 22, 24	.45	5.30
22		16	18	.45	5.30
24	3/8	16	.....14, 18, 20, 22, 24	.45	5.30
26		16	14	.53	6.30
28		14	16	.53	6.30
30	7/16	14	16	.53	6.30

Stove Bolt Taps.

Diameter, Inches.	No. of Threads to Inch.	PRICE. Each.	PRICE. Per Dozen.
5/32	28	.35	4.00
3/16	24	.35	4.00
7/32	22	.35	4.00
1/4	18	.38	4.40
5/16	18	.38	4.40
3/8	16	.45	5.30

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TAPS.

STAY BOLT TAP.

FIG. 2337.

Length, Inches.	DIAMETER, INCHES.					
	$\frac{3}{4}$, $1\frac{3}{16}$, $\frac{7}{8}$	$1\frac{5}{16}$, 1	$1\frac{1}{16}$, $1\frac{1}{8}$	$1\frac{3}{16}$, $1\frac{1}{4}$	$1\frac{5}{16}$, $1\frac{3}{8}$	$1\frac{7}{16}$, $1\frac{1}{2}$
	Price, Each.	Price, Each.	Price, Each.	Price, Each.	Price, Each.	Price, Each.
12	4.50	.....	.....	.....	.....	.....
14	5.00	.....	.....	.....	.....	.....
16	5.60	6.60	7.60	9.00	11.00	13.00
18	7.20	8.50	9.50	10.50	12.50	14.50
21	8.00	9.35	10.35	12.00	14.00	16.00
24	8.80	10.20	11.20	12.75	15.00	17.00
27	10.90	12.25	13.25	14.75	17.00	19.00
30	13.00	14.25	15.25	16.50	18.50	20.00
33	14.00	15.40	16.40	18.00	20.00	22.00
36	15.00	16.50	17.50	19.50	21.50	23.50
39	16.50	18.15	20.00	22.00	24.00	26.00
42	18.00	19.75	22.00	24.00	26.00	28.00
48	19.00	21.00	23.50	25.50	28.00	30.00
54	20.00	22.25	25.00	27.00	30.00	32.00

BIT-BRACE TAP.

FIG. 2338.

Diameter, Inches.	Number of Threads to Inch.	Price, Each.
$\frac{3}{16}$	24	.50
$\frac{1}{4}$	20	.50
$\frac{5}{16}$	18	.55
$\frac{3}{8}$	16	.60
$\frac{7}{16}$	14	.70
$\frac{1}{2}$	12, 13	.80

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TAPS.

Hob Taps.

SHORT HOB.

FIG. 2339.

HOB OR MASTER.

FIG. 2340.

Diameter, Inches.	Standard No. of V Threads to Inch.	V Threads also Furnished.	Length Over All, Fig. 2339, Inches.	Price, Fig. 2339, Each.	Length Over All, Fig. 2340, Inches.	Price, Fig. 2340, Each.
1/4	20	16, 18	2 3/4	.60	4	.75
5/16	18	16	3 1/8	.70	4 3/4	.87
3/8	16	14	3 1/2	.80	5 1/2	1.00
7/16	14	16	3 3/4	.90	6 1/8	1.12
1/2	12	13, 14	4	1.00	6 1/2	1.25
9/16	12	.....	4 1/4	1.15	6 7/8	1.44
5/8	11	10, 12	4 1/2	1.30	7 1/4	1.62
11/16	11	12	4 3/4	1.45	7 5/8	1.81
3/4	10	.....	5	1.60	8	2.00
13/16	10	.....	5 1/4	1.80	8 1/4	2.25
7/8	9	.....	5 1/2	2.10	8 1/2	2.62
15/16	9	.....	5 3/4	2.40	8 7/8	3.00
1	8	.....	6	2.80	9 1/4	3.50
1 1/8	7	8	6 1/4	3.20	9 5/8	4.00
1 1/4	7	8	6 3/4	3.70	10	4.62
1 3/8	6	.....	7	4.20	10 3/8	5.25
1 1/2	6	.....	7 1/4	4.70	10 3/4	5.87
1 5/8	5	5 1/2	8	5.30	11 1/8	6.62
1 3/4	5	.....	8 1/2	6.00	11 1/2	7.50
1 7/8	4 1/2	5	9	6.80	11 7/8	8.50
2	4 1/2	.....	9 1/2	7.70	12 1/4	9.62

TAPS FOR BEAMAN & SMITH HOLDERS.

FIG. 2341.

Fitting No. 1 Holders.			Fitting No. 2 Holders.		
Diameter, Inches.	Number of Threads to Inch.	Price, Each.	Diameter, Inches.	No. of Threads to Inch.	Price, Each.
1/4	20	.45	5/8	11	.90
5/16	18	.50	11/16	11	1.05
3/8	16	.55	3/4	10	1.20
7/16	14	.60	13/16	10	1.40
1/2	12	.70	7/8	9	1.60
9/16	12	.80	15/16	9	1.80
5/8	11	.90	1	8	2.00
.....	.....	.....	1 1/8	7	2.25
.....	.....	.....	1 1/4	7	2.60

Prices of Taps fitting No. 3 Holder given on application.

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TAPS.

THE W. M. PATTISON SUPPLY CO. CLEVELAND

BOILER TAPS, STRAIGHT AND TAPER.

FIG. 2342.

PATCH BOLT TAP.

FIG. 2343.

Boiler Taps, Straight and Taper.

Diameter, Inches.	Number of Threads to Inch.	Price, Each.	Diameter, Inches.	Number of Threads to Inch.	Price, Each.
1/2	12	1.00	1 1/4	12	3.70
9/16	12	1.15	1 5/16	12	4.00
5/8	12	1.30	1 3/8	12	4.30
11/16	12	1.45	1 7/16	12	4.60
3/4	12	1.60	1 1/2	12	4.90
13/16	12	1.80	1 5/8	12	5.10
7/8	12	2.10	1 3/4	12	5.40
15/16	12	2.40	1 7/8	12	5.70
1	12	2.80	2	12	6.00
1 1/16	12	3.00	2 1/4	12	6.50
1 1/8	12	3.20	2 1/4	12	7.00
1 3/16	12	3.40	2 3/8	12	7.50
.....	.....	.....	2 1/2	12	8.00

Patch Bolt Taps.

Diameter .....inches	1/2	9/16	5/8	11/16	3/4	13/16	7/8	15/16	1
Number of Threads to Inch.....	12	12	12	12	12	12	12	12	12
Price .....each	.70	.80	.90	1.05	1.20	1.40	1.60	1.80	2.00

PIPE TAPS AND REAMERS.

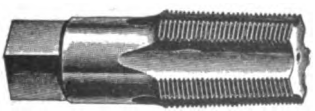

FIG. 2344.

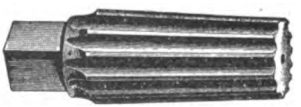

FIG. 2345.

Diameter.....inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4
Price, Taps or Reamers.....each	1.12	1.25	1.50	1.87	2.50	3.12	3.75

Diameter.....inches	1 1/2	2	2 1/2	3	3 1/2	4	.....
Price, Taps or Reamers.....each	4.62	6.25	10.50	15.00	42.00	50.00	.....

COMBINED DRILL REAMER AND TAP.

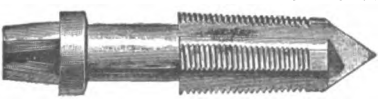

FIG. 2346.

Diameter .....inches	1/2	3/4	1	1 1/4	1 1/2	2
Price.....each	3.00	4.50	6.00	7.25	8.50	10.75

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

ECHOLS' TAPS.

Hand, Pipe, Stay Bolt and Boiler Taps.

TAPER.

FIG. 2347.

PLUG.

FIG. 2348.

BOTTOMING.

FIG. 2349.

The principle of the Echols' is shown in the omission of each alternate tooth, the organization being so carried out that each of the cutting teeth is followed by a space, and vice versa. This arrangement gives a freedom of action to each cutting tooth that is impossible in the old style; as in the latter the teeth of the tap and threads being formed, make a solid mass with no possibility of relief from the side pressure that is obtained in the Echols.

In tapping holes in material such as copper and boiler sheets, the tendency is to tear the threads that are being formed, owing to the wedging action of the cutting teeth and the little resistance offered by the metal to the pressure of the continuous row of cutting edges; the chips are carried forward in a mass in front of the cutting teeth, and unless the tap is frequently reversed and this mass of chips broken off, the thread will either be mutilated or the tap itself broken.

Only one side of the thread that is being formed is operated upon at once. It is thus relieved of one-half of the pressure and wholly of the wedging action. Owing to the absence of the next adjacent threads it is possible for a slightly lateral movement of the thread being formed, owing to the mobility of the metal.

In the use of either tap the same amount of stock is removed in tapping out any given size hole, but actual practice shows that the resistance is from 30 to 50 per cent less than the old style taps, proving conclusively that the excess resistance in the old tap is caused by friction, which is more destructive to the tap in its work than the resistance in the actual cutting operation.

Echols' Taps are furnished in Machine and Hand, Stay Bolt, Boiler, Pipe, Mud or Washout, and Inserted Cutter Pipe Taps.

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THE W. M. PATTISON SUPPLY CO. 869 CLEVELAND

PRATT AND WHITNEY'S.

Machinists' Hand and Machine or Nut Taps.

HAND.

FIG. 2350.

MACHINE.

FIG. 2351.

Diameter, Inches.	Number of Threads to the Inch.	MACHINISTS' HAND TAPS. Total Length Inches.	Price, Each.	Price, Per Set.	MACHINE OR NUT TAPS. Length of Thread, Inches.	Total Length Inches.	Price, Each.
3/16	24 and 32	2 1/4	.45	1.35	2	5	.60
1/4	18, 20, 22 and 24	2 1/2	.45	1.35	2	5	.60
5/16	16, 18, 20 and 24	2 1/16	.50	1.50	2 1/2	5 1/2	.70
3/8	14, 16, 18, 20 and 24	2 7/16	.55	1.65	2 1/2	7	.80
7/16	12, 14 and 16	3 1/16	.60	1.80	2 3/4	7 1/2	.90
1/2	12, 13, 14, 20 and 24	3 1/2	.70	2.10	3 1/4	8	1.00
9/16	12 and 14	3 1/2	.80	2.40	3 1/4	8	1.15
5/8	10, 11 and 12	3 13/16	.90	2.70	3 1/2	9 1/2	1.30
11/16	11 and 12	3 13/16	1.05	3.15	3 1/2	9 1/2	1.45
3/4	10, 11 and 12	4 1/16	1.20	3.60	4 1/4	10 1/2	1.60
13/16	9, 10 and 12	4 1/16	1.40	4.20	4 1/4	10 1/2	1.80
7/8	9, 10 and 12	4 5/16	1.60	4.80	4 1/4	11	2.10
15/16	8, 9 and 12	4 5/16	1.80	5.40	4 1/2	11	2.40
1	8 and 12	5 1/16	2.00	6.00	5	12	2.80
1 1/16	8	5 1/16	2.15	6.45	5	12	3.00
1 1/8	7 and 8	5 5/16	2.25	6.75	5 1/2	13	3.20
1 3/16	7	5 5/16	2.45	7.35	5 1/2	13	3.45
1 1/4	7	6 1/16	2.60	7.80	6	14	3.70
1 5/16	7	6 1/16	2.80	8.40	6	14	3.95
1 3/8	6	6 5/16	3.00	9.00	7	15	4.20
1 7/16	6	6 5/16	3.25	9.75	7	15	4.45
1 1/2	6	7 1/16	3.50	10.50	7	15	4.70
1 5/8	5 and 5 1/2	8	4.20	12.60	7 1/2	16	5.30
1 3/4	5	8 5/16	5.00	15.00	7 1/2	17	6.00
1 7/8	4 1/2 and 5	9 1/16	5.80	17.40	7 3/4	18	6.80
2	4 1/2	9 1/16	6.70	20.10	8	19	7.70
2 1/8	4 1/2	9 3/16	8.00	24.00	8	19	9.00
2 1/4	4 1/2	10 1/16	9.20	27.60	8 1/4	20	10.20
2 3/8	4	10 1/2	10.50	31.50	8 1/2	20	11.50
2 1/2	4	11	11.50	34.50	9 1/4	20	12.50
2 3/4	4	11 1/2	14.00	42.00	9 3/4	20	15.00
3	3 1/2	12	17.00	51.00	10 3/4	20	18.00
3 1/4	3 1/2	12 3/16	20.50	61.50	10 3/4	20	21.50
3 1/2	3 1/2	13 1/4	24.00	72.00	11 1/4	20	25.50
3 3/4	3	14 1/4	28.50	85.50	12	22	29.50
4	3	15	32.50	97.50	12 1/2	22	33.50

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THE W. M. PATTISON SUPPLY CO. 870 CLEVELAND

PRATT AND WHITNEYS' TAPPER AND PULLEY TAPS.

TAPPER.

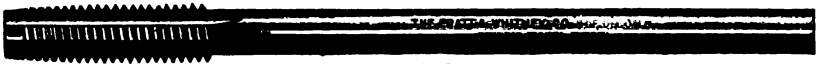

FIG. 2352.

PULLEY.

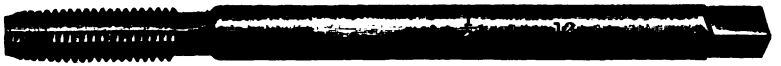

FIG. 2353.

Tapper Taps.

Diameter, Inches.	Number of Threads to Inch.	Length of Thread, Inches,	PRICE, EACH.	
			Total Length, 11 Inches.	Total Length, 14 Inches.
1/4	20	1 3/4	.70	.80
5/16	18	2	.80	.90
3/8	16	2	.90	1.00
7/16	14	2 1/2	1.00	1.15
1/2	12 and 13	2 1/2	1.12	1.25
9/16	12	2 1/2	1.30	1.45
5/8	11	3	1.45	1.65
11/16	11	3	1.62	1.80
3/4	10	3 1/2	1.80	2.00
13/16	10	3 1/2	2.05	2.25
7/8	9	4	2.35	2.60
15/16	9	4	2.70	3.00
1	8	4	3.15	3.50
1 1/8	7	4 1/4	3.60	3.95
1 1/4	7	4 1/4	4.15	4.50
1 3/8	6	4 1/2	4.70	5.05
1 1/2	6	4 1/2	5.30	5.65

Pulley Taps.

Diameter, Inches.	Number of Threads to the Inch.	PRICE, EACH.									
		6 Inch.	8 Inch.	10 Inch.	12 Inch.	14 Inch.	16 Inch.	18 Inch.	20 Inch.	22 Inch.	24 Inch.
1/4	20	.65	.70	.80	.90	.....	.....	.....	.....	.....	.....
5/16	18	.75	.80	1.00	1.20	.....	.....	.....	.....	.....	.....
3/8	16	.80	.90	1.10	1.30	1.40	1.55	1.70	.....	.....	.....
7/16	14	.90	1.00	1.20	1.40	1.50	1.65	1.80	.....	.....	.....
1/2	12, 13	1.00	1.15	1.30	1.45	1.60	1.75	1.90	2.05	.....	.....
9/16	12	1.10	1.30	1.45	1.55	1.70	1.85	2.05	2.20	2.35	.....
5/8	11	1.20	1.35	1.50	1.60	1.75	1.90	2.10	2.25	2.40	2.55
11/16	11	1.30	1.45	1.55	1.70	1.90	2.05	2.20	2.35	2.50	2.65
3/4	10	1.40	1.50	1.60	1.80	2.00	2.15	2.30	2.45	2.60	2.75
13/16	10	1.60	1.70	1.80	2.00	2.15	2.30	2.45	2.60	2.75	2.90
7/8	9	1.80	1.90	2.10	2.30	2.50	2.70	2.90	3.10	3.30	3.50
15/16	9	2.00	2.10	2.30	2.50	2.70	2.90	3.10	3.30	3.50	3.70
1	8	2.25	2.30	2.50	2.70	2.90	3.10	3.30	3.50	3.70	3.90

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 871

PRATT AND WHITNEYS' TAPS.

MACHINE SCREW.

FIG. 2354.

Machine Screw Taps.

Approximate Diameter, Fraction of an Inch.	Wire Guage, Number.	Number of Threads to the Inch.	Price, Each.	Price, Per Dozen.
.....	1	....60, 72	.35	4.00
.....	2	....48, 56, 64	.35	4.00
.....	3	....40, 44, 48, 56	.35	4.00
$\frac{7}{64}$	4	....30, 32, 36, 40, 44, 48	.35	4.00
.....	5	.....30, 32, 36, 40, 44, 48	.35	4.00
$\frac{9}{64}$	6	.....30, 32, 36, 40, 44, 48	.35	4.00
.....	7	.....24, 28, 30, 32, 36, 40	.35	4.00
$\frac{5}{32}$	8	.....24, 30, 32, 36, 40, 44	.35	4.00
.....	9	....24, 28, 30, 32	.35	4.00
$\frac{3}{16}$	10	.....20, 22, 24, 28, 30, 32, 36	.35	4.00
.....	11	....22, 24, 28, 30	.35	4.00
$\frac{7}{32}$	12	..20, 22, 24, 26, 28, 30, 32, 34, 36	.35	4.00
.....	13	.....20, 22, 24, 32	.38	4.40
$\frac{1}{4}$	14	.....16, 18, 20, 22, 24, 26	.38	4.40
.....	15	....18, 20, 22, 24	.38	4.40
$\frac{17}{64}$	16	.....16, 18, 20, 22, 24, 26	.38	4.40
$\frac{9}{32}$	18	.....16, 18, 20, 22, 24, 26	.38	4.40
.....	19	....16, 18, 20	.38	4.40
$\frac{5}{16}$	20	.....16, 18, 20, 22, 24	.45	5.30
.....	22	.....16, 18	.45	5.30
$\frac{3}{8}$	24	.....14, 16, 18, 20, 22, 24	.45	5.30
.....	26	.....14, 16	.53	6.30
.....	28	....14, 16	.53	6.30
.....	30	....14, 16	.53	6.30

Shanks on Nos. 1 to 5 are $\frac{1}{8}$ inch in diameter, Nos. 6 to 30 shanks are equal to diameter of outside thread.

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PRATT AND WHITNEYS' TAPS.

STAY BOLT.

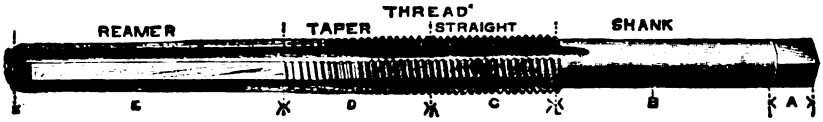

FIG. 2355.

Stay Bolt Taps.

Diameter.....inches.	$\frac{3}{4}$ to $\frac{7}{8}$	$\frac{15}{16}$ to 1	$1\frac{1}{8}$ to $1\frac{1}{4}$	$1\frac{3}{16}$ to $1\frac{1}{4}$	$1\frac{5}{16}$ to $1\frac{3}{8}$
Price.....each.	.40	.45	.50	.57	.70

Echols' Patent furnished when desired.

SPINDLE STAY BOLT.

FIG. 2356.

Spindle Stay Bolt Taps.

Diameter, Inches.	Length of Fluted Thread, Inches.	Length of Unfluted Thread, Inches.	Total Length Inches.	Diameter of Spindle. Inches.	Length of Spindle, Inches.	Price, Each.
$\frac{3}{4}$	$3\frac{1}{4}$	$2\frac{3}{4}$	$7\frac{5}{8}$	$\frac{3}{8}$	11	8.00
$\frac{15}{16}$	$3\frac{1}{4}$	$2\frac{3}{4}$	$7\frac{5}{8}$	$\frac{3}{8}$	11	8.50
$\frac{7}{8}$	$3\frac{1}{4}$	$2\frac{3}{4}$	$7\frac{5}{8}$	$\frac{3}{8}$	11	9.00
$\frac{15}{16}$	$3\frac{1}{4}$	$2\frac{3}{4}$	$7\frac{5}{8}$	$\frac{3}{8}$	11	9.50
1	$3\frac{1}{4}$	$2\frac{3}{4}$	$7\frac{5}{8}$	$\frac{3}{8}$	11	10.00
$1\frac{1}{16}$	$3\frac{1}{4}$	$2\frac{3}{4}$	$7\frac{5}{8}$	$\frac{3}{8}$	11	10.50
$1\frac{1}{8}$	$3\frac{1}{4}$	$2\frac{3}{4}$	$7\frac{5}{8}$	$\frac{3}{8}$	11	11.00
$1\frac{3}{16}$	$3\frac{1}{4}$	$2\frac{3}{4}$	$7\frac{5}{8}$	$\frac{3}{8}$	11	11.50
$1\frac{1}{4}$	$3\frac{1}{4}$	$2\frac{3}{4}$	$7\frac{5}{8}$	$\frac{3}{8}$	11	12.00

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THE W. M. PATTISON SUPPLY CO. 873 CLEVELAND

PRATT AND WHITNEYS' TAPS.

SELLERS' HOB.

FIG. 2357.
LONG TAPER DIE TAP.

FIG. 2358.

Hob and Die Taps.

Size, Inches.	Number of Threads per Inch.	Price, Short Shank Hobs. Each.	Price, Sellers Hobs. Each.	Price, Long Taper Thread Die Taps. Each.
1/4	20	.60	1.20	.60
5/16	18	.70	1.40	.70
3/8	16	.80	1.60	.80
7/16	14	.90	1.80	.90
1/2	13	1.00	2.00	1.00
9/16	12	1.15	2.30	1.15
5/8	11	1.30	2.60	1.30
11/16	11	1.45	2.90	1.45
3/4	10	1.60	3.20	1.60
13/16	10	1.80	3.60	1.80
7/8	9	2.10	4.20	2.10
15/16	9	2.40	4.80	2.40
1	8	2.80	5.60	2.80
1 1/8	7	3.20	6.40	3.20
1 1/4	7	3.70	7.40	3.70
1 3/8	6	4.20	8.40	4.20
1 1/2	6	4.70	9.40	4.70
1 5/8	5 1/2	5.30	10.60	5.30
1 3/4	5	6.00	12.00	6.00
1 7/8	5	6.80	13.60	6.80
2	4 1/2	7.70	15.40	7.70

U. S. Standard and Whitworth left hand Thread and U. S. or Whitworth form, right or left hand, of other pitch than the Standard and Sharp V Thread, right or left hand furnished at prices given above.

PIPE HOBS.

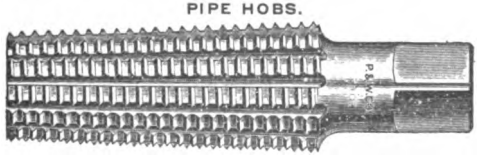

FIG. 2359.

Size ..... inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4
Price ..... each	1.20	1.30	1.60	2.00	2.60	3.50	4.00

Size ..... inches	1 1/2	2	2 1/2	3	3 1/2	4	.....
Price ..... each	5.00	6.50	10.00	15.00	25.00	34.00	.....

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THE W. M. PATTISON SUPPLY CO. 874 CLEVELAND

PRATT AND WHITNEYS' TAPS.

BOILER TAP.

FIG. 2360.

Boiler Taps, Straight and Taper.

Diameter...inches	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$1\frac{1}{16}$	$\frac{3}{4}$	$1\frac{3}{16}$	$\frac{7}{8}$	$1\frac{5}{16}$	1	$1\frac{1}{16}$	$1\frac{1}{8}$	$1\frac{3}{16}$	$1\frac{1}{4}$
Price..... each	1.00	1.15	1.30	1.45	1.60	1.80	2.10	2.40	2.80	3.00	3.20	3.40	3.70

Diameter...inches	$1\frac{5}{16}$	$1\frac{3}{8}$	$1\frac{7}{16}$	$1\frac{1}{2}$	$1\frac{5}{8}$	$1\frac{3}{4}$	$1\frac{7}{8}$	2	$2\frac{1}{8}$	$2\frac{1}{4}$	$2\frac{3}{8}$	$2\frac{1}{2}$	.....
Price..... each	4.00	4.30	4.60	4.90	5.10	5.40	5.70	6.00	6.50	7.00	7.50	8.00	.....

Pipe Taps.

Size ..... inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$
Price..... each	1.12	1.25	1.50	1.87	2.50	3.12	3.75

Size ..... inches	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	.....
Price..... each	4.62	6.25	10.50	15.00	22.00	33.00	.....

Echols' Patent furnished when desired.

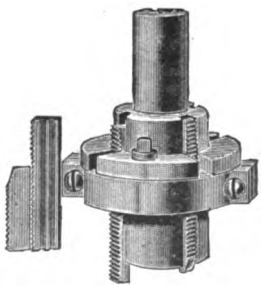

FIG. 2361.

Burritts' Taps, with Adjustable and Detachable Cutters.

Size, Inches.	Total Length. Inches.	Diameter of Shank. Inches.	Length Under Ring. Inches.	Size of Chasers. Inches.	Price Complete. Each.	Price, Chasers. Per Set.
$1\frac{1}{4}$	7	2	$1\frac{1}{2}$	$3\frac{1}{2}\times\frac{5}{16}\times\frac{9}{16}$	20.00	1.25
$1\frac{1}{2}$	7	2	$1\frac{1}{2}$	$3\frac{1}{2}\times\frac{5}{16}\times\frac{9}{16}$	24.00	1.25
2	7	$2\frac{1}{2}$	$1\frac{3}{4}$	$3\frac{1}{2}\times\frac{5}{16}\times\frac{9}{16}$	28.00	1.25
$2\frac{1}{2}$	$7\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{4}$	$4\frac{3}{8}\times\frac{3}{8}\times\frac{3}{4}$	34.00	1.50
3	$7\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{4}$	$4\frac{3}{8}\times\frac{3}{8}\times\frac{3}{4}$	38.00	1.50
$3\frac{1}{2}$	$7\frac{1}{2}$	3	$2\frac{1}{4}$	$4\frac{3}{8}\times\frac{3}{8}\times\frac{3}{4}$	42.00	1.50
4	$7\frac{1}{2}$	3	$2\frac{1}{4}$	$4\frac{3}{8}\times\frac{3}{8}\times\frac{3}{4}$	47.00	1.50
$4\frac{1}{2}$	$7\frac{1}{2}$	3	$2\frac{1}{4}$	$4\frac{3}{8}\times\frac{3}{8}\times\frac{3}{4}$	50.00	1.50
5	$7\frac{1}{2}$	4	$2\frac{1}{4}$	$4\frac{3}{8}\times\frac{3}{8}\times\frac{3}{4}$	53.00	1.50
6	$7\frac{1}{2}$	4	$2\frac{1}{4}$	$4\frac{3}{8}\times\frac{3}{8}\times\frac{3}{4}$	60.00	1.50

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TAPPING ATTACHMENTS.

LELAND TAPPING ATTACHMENT.

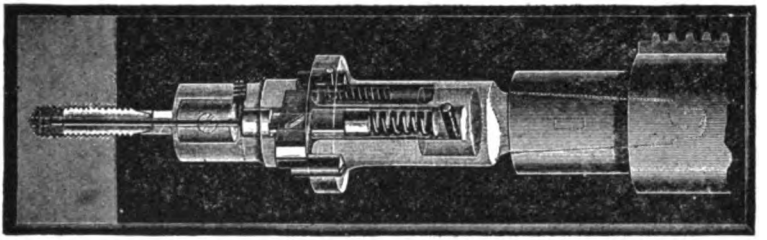

FIG. 2362.

Price, No. 2, Carrying Taps $\frac{1}{4}$ to $\frac{7}{16}$ Inch	each	35.00
Price, No. 1, Carrying Taps $\frac{1}{2}$ to $1\frac{1}{2}$ Inch	each	50.00

Taps for Leland Tapping Attachments.

Size	inches	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$1\frac{1}{16}$	$\frac{3}{4}$	$1\frac{3}{16}$	$\frac{7}{8}$	$1\frac{15}{16}$
Price, for No. 2 Head	each	.70	.80	.90	1.05	1.20	1.40	1.60	.....
Price, for No. 1 Head	each	.....	.....	1.10	1.25	1.40	1.60	1.80	2.00

Size	inches	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	.....	.....	.....
Price, for No. 1 Head	each	2.25	2.50	2.75	3.00	3.50	.....	.....	.....

INSIDE AND OUTSIDE HAND CHASERS.

FIG 2363.

FIG. 2364.

Inside and Outside Hand Chasers.

Price, Chasers for cutting U. S. Standard pitches, 9 to 20	each	.35
Price, Chasers for cutting U. S. Standard pitches, 3 to 8	each	.50

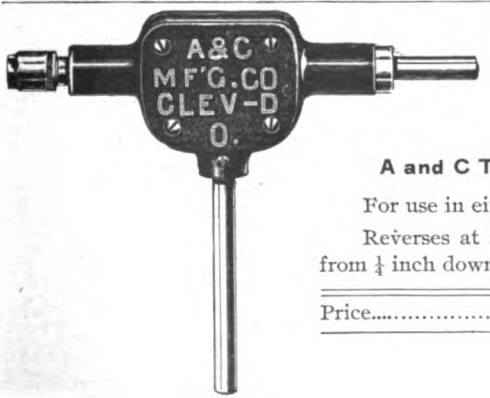

FIG. 2365.

A and C Tapping Attachment.

For use in either Drill Press or Lathe.

Reverses at any point desired, holds taps from $\frac{1}{4}$ inch down.

Price	each	12.00

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THE W. M. PATTISON SUPPLY CO. 876 CLEVELAND

ADJUSTABLE TAP WRENCHES.

T TAP WRENCH.

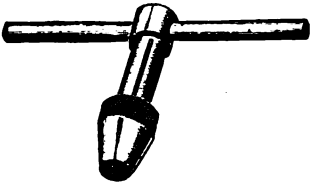

FIG. 2366.

Adjustable T Tap Wrenches.

Price, to take Machine Screw Taps Nos. 2 to 14, Straight Shank Taps $\frac{5}{16}$ to $\frac{1}{4}$ inch.....each	.50
Price, to take Machine Screw Taps Nos. 14 to 24 and Hand Taps $\frac{9}{32}$ to $\frac{1}{2}$ inch.....each	1.00

STANDARD TAP WRENCH.

FIG. 2367.

LITTLE GIANT TAP WRENCH.

FIG. 2368.

Standard Tap Wrenches.

Number	0	1	$1\frac{1}{2}$	2	3	4	5
Length.....inches	5	$7\frac{1}{2}$	10	12	14	19	24
For Taps.....inches	$\frac{1}{16}$ to $\frac{3}{16}$	$\frac{1}{8}$ to $\frac{3}{8}$	$\frac{3}{16}$ to $\frac{1}{2}$	$\frac{1}{4}$ to $\frac{5}{8}$	$\frac{1}{2}$ to $\frac{3}{4}$	$\frac{3}{4}$ to $1\frac{1}{8}$	$\frac{7}{8}$ to $1\frac{1}{2}$
Price.....each.	1.00	1.50	2.00	2.00	3.00	4.00	5.25

Little Giant Tap Wrenches.

Number	0	5	6	7	8
Length.....inches	7	$10\frac{1}{2}$	15	20	42
For Taps.....inches	$\frac{1}{16}$ to $\frac{1}{4}$	$\frac{3}{16}$ to $\frac{1}{2}$	$\frac{1}{4}$ to $\frac{3}{4}$	$\frac{3}{8}$ to 1	$\frac{3}{4}$ to $1\frac{1}{2}$
Price.....each	1.50	2.00	2.50	3.50	7.00

DROP FORGED TAP WRENCHES.

FIG. 2369.

Number	0	1	2
Length.....inches	$6\frac{3}{4}$	15	23
For Taps.....inches	$\frac{1}{4}$ to $\frac{1}{4}$	$\frac{1}{4}$ to $\frac{3}{4}$	$\frac{3}{4}$ to $1\frac{5}{16}$
Price.....each	2.25	3.50	5.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 877

ARBORS FOR SHELL REAMERS.

STRAIGHT SHANK.

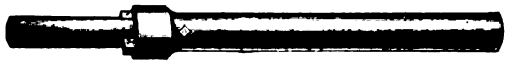

FIG. 2370.

TAPER SHANK.

FIG. 2371.

Straight Shank Arbors.

Number.	Fitting Sizes, Inches.	Full Length Inches.	Price, Each	Number.	Fitting Sizes, Inches.	Full Length Inches.	Price, Each.
1	$\frac{1}{4}$ to $\frac{5}{16}$	6	1.20	8	$1\frac{1}{16}$ to 2	12	2.70
2	$\frac{3}{8}$ to $\frac{7}{16}$	7	1.40	9	$2\frac{1}{16}$ to $2\frac{1}{2}$	13	3.00
3	$\frac{1}{2}$ to $\frac{9}{16}$	8	1.60	10	$2\frac{9}{16}$ to 3	14	3.40
4	$\frac{5}{8}$ to $\frac{11}{16}$	9	1.80	11	$3\frac{1}{16}$ to $3\frac{1}{2}$	15	5.00
5	$\frac{3}{4}$ to $\frac{15}{16}$	$9\frac{1}{2}$	2·00	12	$3\frac{9}{16}$ to 4	16	7.00
6	1 to $1\frac{1}{4}$	10	2.20	13	$4\frac{1}{16}$ to $4\frac{1}{2}$	17	8.50
7	$1\frac{5}{16}$ to $1\frac{5}{8}$	11	2.40	14	$4\frac{9}{16}$ to 5	18	11.50

Taper Shank Arbors.

Number.	Fitting Sizes, Inches.	Length Over All, Inches.	Number of Taper.	Price, Each.	Number.	Fitting Sizes, Inches.	Length Over All, Inches.	Number of Taper.	Price, Each.
1	$\frac{1}{4}$ to $\frac{5}{16}$	6	1	2.40	8	$1\frac{1}{16}$ to 2	$13\frac{7}{16}$	4	4.10
2	$\frac{3}{8}$ to $\frac{7}{16}$	$7\frac{1}{16}$	1	2.40	9	$2\frac{1}{16}$ to $2\frac{1}{2}$	$14\frac{1}{2}$	4	4.25
3	$\frac{1}{2}$ to $\frac{9}{16}$	$8\frac{1}{8}$	1	2.40	10	$2\frac{9}{16}$ to 3	$15\frac{9}{16}$	5	5.00
4	$\frac{5}{8}$ to $\frac{11}{16}$	$9\frac{3}{16}$	2	2.70	11	$3\frac{1}{16}$ to $3\frac{1}{2}$	$16\frac{5}{8}$	5	6.00
5	$\frac{3}{4}$ to $\frac{15}{16}$	$10\frac{1}{4}$	2	2.70	12	$3\frac{9}{16}$ to 4	$17\frac{3}{4}$	5	7.75
6	1 to $1\frac{1}{4}$	$11\frac{5}{16}$	3	3.30	13	$4\frac{1}{16}$ to $4\frac{1}{2}$	$19\frac{7}{8}$	5	9.50
7	$1\frac{5}{16}$ to $1\frac{5}{8}$	$12\frac{3}{8}$	3	3.60	14	$4\frac{9}{16}$ to 5	20	5	12.75

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SHELL REAMERS.

FLUTED SHELL.

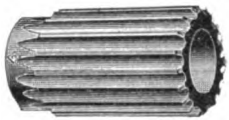

FIG. 2372.

ROSE SHELL.

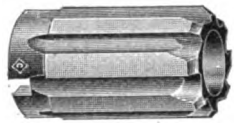

FIG. 2373.

Arbor Number.	Diameter. Inches.	Price, Each.	Length Inches.	Size Hole. Inches.
No. 1.	1/4	1.10	1 1/8	1/8
	5/16	1.10	1 1/8	1/8
No. 2.	3/8	1.20	1 3/4	5/16
	7/16	1.30	1 3/4	3/16
No. 3.	1/2	1.40	2	1/4
	9/16	1.50	2	1/4
No. 4.	5/8	1.60	2 1/4	3/8
	11/16	1.60	2 1/4	3/8
No. 5.	3/4	1.60	2 1/2	1/2
	13/16	1.60	2 1/2	1/2
	7/8	1.70	2 1/2	1/2
	15/16	1.70	2 1/2	1/2
No. 6.	1	1.80	2 3/4	5/8
	1 1/16	1.80	2 3/4	5/8
	1 1/8	1.90	2 3/4	5/8
	1 3/16	2.00	2 3/4	5/8
	1 1/4	2.20	2 3/4	5/8
No. 7.	1 5/16	2.40	3	3/4
	1 3/8	2.60	3	3/4
	1 7/16	2.80	3	3/4
	1 1/2	3.00	3	3/4
	1 9/16	3.20	3	3/4
	1 5/8	3.50	3	3/4
No. 8.	1 11/16	3.80	3 1/2	1
	1 3/4	4.10	3 1/2	1
	1 13/16	4.40	3 1/2	1
	1 7/8	4.70	3 1/2	1
	1 15/16	5.00	3 1/2	1
	2	5.20	3 1/2	1
No. 9.	2 1/16	5.40	3 3/4	1 1/4
	2 1/8	5.60	3 3/4	1 1/4
	2 3/16	5.80	3 3/4	1 1/4
	2 1/4	6.00	3 3/4	1 1/4
	2 5/16	6.20	3 3/4	1 1/4
	2 3/8	6.40	3 3/4	1 1/4
	2 7/16	6.60	3 3/4	1 1/4
	2 1/2	6.80	3 3/4	1 1/4
No. 10.	2 9/16	7.00	4	1 1/2
	2 5/8	7.30	4	1 1/2
	2 11/16	7.60	4	1 1/2
	2 3/4	8.00	4	1 1/2
	2 13/16	8.40	4	1 1/2
	2 7/8	8.80	4	1 1/2
	2 15/16	9.20	4	1 1/2
	3	9.60	4	1 1/2

Arbor Number.	Diameter. Inches.	Price, Each.	Length Inches.	Size Hole,
No. 11.	3 1/16	9.90	4 1/2	1 3/4
	3 1/8	10.20	4 1/2	1 3/4
	3 3/16	10.60	4 1/2	1 3/4
	3 1/4	11.00	4 1/2	1 3/4
	3 5/16	11.50	4 1/2	1 3/4
	3 3/8	12.00	4 1/2	1 3/4
	3 7/16	12.50	4 1/2	1 3/4
	3 1/2	13.00	4 1/2	1 3/4
No. 12.	3 9/16	13.50	5	2
	3 5/8	14.00	5	2
	3 11/16	14.50	5	2
	3 3/4	15.00	5	2
	3 13/16	15.50	5	2
	3 7/8	16.00	5	2
	3 15/16	17.00	5	2
	4	18.00	5	2
No. 13.	4 1/16	18.30	5 1/2	2 1/4
	4 1/8	18.60	5 1/2	2 1/4
	4 3/16	19.00	5 1/2	2 1/4
	4 1/4	19.40	5 1/2	2 1/4
	4 5/16	19.80	5 1/2	2 1/4
	4 3/8	20.20	5 1/2	2 1/4
	4 7/16	20.60	5 1/2	2 1/4
	4 1/2	21.00	5 1/2	2 1/4
No. 14.	4 9/16	21.60	6	2 1/2
	4 5/8	22.20	6	2 1/2
	4 11/16	22.80	6	2 1/2
	4 3/4	23.40	6	2 1/2
	4 13/16	24.00	6	2 1/2
	4 7/8	24.60	6	2 1/2
	4 15/16	25.20	6	2 1/2
	5	26.00	6	2 1/2
	5 1/4	30.00	6	2 1/2
	5 1/2	34.00	6	2 1/2
	5 3/4	38.00	6	2 1/2
	6	42.00	6	2 1/2

THE W. M. PATTISON SUPPLY CO. 879 CLEVELAND

SELF FEEDING AND HAND REAMERS.

Eccentric Flutes.

SELF FEEDING.

FIG. 2374.

HAND.

FIG. 2375.

Diameter Inches.	Price, Each	Full Length, Inches.	Length of Flutes, Inches.	Diameter, Inches.	Price, Each	Full Length, Inches.	Length of Flutes, Inches.
1/8	1.00	3	1 1/2	1 11/32	5.40	12 17/32	6 17/64
5/32	1.10	3 1/4	1 9/16	1 3/8	5.60	12 3/8	6 5/16
3/16	1.20	3 1/2	1 11/16	1 13/32	5.80	12 23/32	6 23/64
7/32	1.30	3 3/4	1 3/4	1 7/16	6.00	12 13/16	6 13/32
1/4	1.40	4	2	1 15/32	6.20	12 29/32	6 29/64
9/32	1.45	4 1/4	2 1/8	1 1/2	6.40	13	6 1/2
5/16	1.50	4 1/2	2 1/4	1 17/32	6.60	13	6 1/2
11/32	1.55	4 3/4	2 3/8	1 9/16	6.80	13	6 1/2
3/8	1.60	5	2 1/2	1 19/32	7.00	13	6 1/2
13/32	1.70	5 1/4	2 5/8	1 5/8	7.20	13	6 1/2
7/16	1.75	5 1/2	2 3/4	1 21/32	7.40	13 1/2	6 3/4
15/32	1.85	5 3/4	2 7/8	1 11/16	7.60	13 1/2	6 3/4
1/2	1.90	6	3	1 23/32	7.80	13 1/2	6 3/4
17/32	1.95	6 1/4	3 1/8	1 3/4	8.00	13 1/2	6 3/4
9/16	2.00	6 1/2	3 1/4	1 25/32	8.20	13 1/2	6 3/4
19/32	2.10	6 3/4	3 3/8	1 13/16	8.40	13 1/2	6 3/4
5/8	2.20	7	3 1/2	1 27/32	8.60	13 1/2	6 3/4
21/32	2.30	7 1/4	3 5/8	1 7/8	8.80	14	7
11/16	2.40	7 1/2	3 3/4	1 29/32	9.00	14	7
23/32	2.50	8 1/8	4 1/16	1 15/16	9.20	14	7
3/4	2.60	8 3/8	4 3/16	1 31/32	9.40	14	7
25/32	2.70	8 23/32	4 23/64	2	9.60	14	7
13/16	2.80	9 1/16	4 17/32	2 1/16	10.00	14 1/2	7 1/4
27/32	2.95	9 1/8	4 11/16	2 1/8	10.40	14 1/2	7 1/4
7/8	3.10	9 1/8	4 7/16	2 3/16	10.80	15	7 1/2
29/32	3.25	10 3/32	5 3/64	2 1/4	11.30	15	7 1/2
15/16	3.40	10 1/4	5 1/8	2 5/16	11.80	15	7 1/2
31/32	3.55	10 1/16	5 1/32	2 3/8	12.30	15	7 1/2
1	3.70	10 7/8	5 1/16	2 7/16	12.80	15 1/2	7 3/4
1 1/32	3.85	11 1/16	5 17/32	2 1/2	13.40	15 1/2	7 3/4
1 1/16	4.00	11 1/4	5 9/16	2 9/16	14.00	15 1/2	7 3/4
1 3/32	4.15	11 7/16	5 23/32	2 5/8	14.60	16	8
1 1/8	4.30	11 9/16	5 13/16	2 11/16	15.40	16	8
1 5/32	4.45	11 13/16	5 23/32	2 3/4	16.20	16	8
1 3/16	4.60	12	6	2 13/16	17.00	16 1/2	8 1/4
1 7/32	4.75	12 1/8	6 1/16	2 7/8	17.80	16 1/2	8 1/4
1 1/4	4.90	12 1/4	6 1/8	2 15/16	18.60	16 1/2	8 1/4
1 9/32	5.05	12 1/16	6 1/16	3	19.40	16 1/2	8 1/4
1 5/16	5.20	12 7/16	6 7/32				

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SHORT SET SELF-FEEDING REAMERS.

Eccentric Flutes.

FIG. 2376.

Diameter Inches.	Price Each.	Length Over All. Inches.	Length of Flute. Inches.	Diameter Inches.	Price Each.	Lenght Over All. Inches.	Length of Flute. Inches.
1/4	1.30	3 3/4	2 3/16	1 1/32	4.20	9 1/2	5 1/8
9/32	1.35	3 7/8	2 3/16	1 1/16	4.35	9 1/2	5 1/4
5/16	1.40	4	2 1/4	1 3/32	4.50	9 7/8	5 3/8
11/32	1.45	4 1/8	2 5/16	1 1/2	4.70	10	5 1/2
3/8	1.50	4 1/4	2 3/8	1 17/32	4.95	10 1/8	5 1/2
13/32	1.55	4 3/8	2 7/16	1 9/16	5.20	10 1/4	5 5/8
7/16	1.60	4 1/2	2 7/16	1 19/32	5.45	10 3/8	5 5/8
15/32	1.65	4 5/8	2 1/2	1 5/8	5.70	10 1/2	5 3/4
1/2	1.70	4 3/4	2 9/16	1 21/32	5.95	10 5/8	5 7/8
17/32	1.75	4 7/8	2 9/16	1 11/16	6.20	10 3/4	5 7/8
9/16	1.80	5	2 5/8	1 23/32	6.45	10 7/8	5 7/8
19/32	1.85	5 1/8	2 11/16	1 3/4	6.70	11	6
5/8	1.90	5 1/4	2 3/4	1 25/32	6.95	11 1/8	6
21/32	1.95	5 3/8	2 3/4	1 13/16	7.10	11 1/4	6 1/8
11/16	2.05	5 1/2	2 3/4	1 27/32	7.30	11 3/8	6 1/8
23/32	2.15	5 5/8	2 7/8	1 7/8	7.50	11 1/2	6 1/4
3/4	2.20	5 3/4	3	1 29/32	7.70	11 5/8	6 1/4
25/32	2.30	5 7/8	3	1 15/16	7.90	11 3/4	6 3/8
13/16	2.35	6	3 1/8	1 31/32	8.10	11 7/8	6 3/8
27/32	2.40	6 1/4	3 1/8	2	8.30	12	6 1/2
7/8	2.50	6 3/8	3 1/4	2 1/16	8.70	12 1/4	6 1/2
29/32	2.60	6 1/2	3 3/8	2 1/8	9.10	12 1/2	6 5/8
15/16	2.70	6 3/4	3 7/16	2 3/16	9.50	12 3/4	6 5/8
31/32	2.80	7	3 1/2	2 1/4	9.90	12 7/8	6 3/4
1	2.90	7 1/8	3 5/8	2 5/16	10.30	12 5/8	6 3/4
1 1/32	3.00	7 1/4	3 5/8	2 3/8	10.80	12 3/4	6 7/8
1 1/16	3.10	7 1/2	3 3/4	2 7/16	11.40	12 7/8	7
1 3/32	3.20	7 3/4	3 7/8	2 1/2	12.00	13	7
1 1/8	3.30	7 7/8	4	2 9/16	12.60	13 1/8	7 1/8
1 5/32	3.40	8	4 1/8	2 5/8	13.20	13 1/4	7 1/8
1 3/16	3.50	8 1/4	4 1/4	2 11/16	13.85	13 3/8	7 1/4
1 7/32	3.60	8 1/2	4 3/8	2 3/4	14.50	13 1/2	7 1/4
1 1/4	3.70	8 5/8	4 1/2	2 13/16	15.20	13 5/8	7 3/8
1 9/32	3.80	8 3/4	4 5/8	2 7/8	15.95	13 3/4	7 3/8
1 5/16	3.90	9	4 3/4	2 15/16	16.70	13 7/8	7 1/2
1 11/32	4.00	9 1/4	4 7/8	3	17.50	14	7 1/2
1 3/8	4.10	9 3/8	5				

When ordering specify SHORT SET.

These Reamers are milled with an even number of flutes but unevenly spaced and are guaranteed not to chatter.

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THE W. M. PATTISON SUPPLY CO. 881 CLEVELAND

TAPER SHANK REAMERS.

Eccentric Flutes.

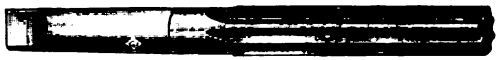

FIG. 2377.

Diameter Inches.	Price Each.	Length Inches.	Length of Flute. Inches.	Diameter Inches.	Price Each.	Length Inches.	Length of Flute. Inches.
1/4	1.50	5 3/16	2	1 3/32	5.90	12 1/16	6 5/16
9/32	1.55	5 3/16	2	1 7/32	6.10	13	6 7/16
5/16	1.60	5 1/4	2 1/4	1 5/32	6.30	13	6 7/16
11/32	1.65	5 1/4	2 1/4	1 1/2	6.50	13 1/8	6 1/2
3/8	1.70	5 3/16	2 1/4	1 17/32	6.70	13 1/8	6 1/2
13/32	1.80	5 3/16	2 1/4	1 9/16	6.90	13 1/8	6 1/2
7/16	1.85	6 1/8	2 3/4	1 19/32	7.10	13 1/8	6 1/2
15/32	1.95	6 1/8	2 3/4	1 5/8	7.30	13 1/8	6 1/2
1/2	2.00	6 7/16	3	1 21/32	7.50	13 1/8	6 1/2
17/32	2.10	6 7/16	3	1 11/16	7.70	14 1/16	6 3/4
9/16	2.15	6 3/4	3 1/4	1 23/32	7.85	14 1/16	6 3/4
19/32	2.25	6 3/4	3 1/4	1 3/4	8.00	14 1/16	6 3/4
5/8	2.30	7 9/16	3 1/2	1 25/32	8.20	14 1/16	6 3/4
21/32	2.40	7 9/16	3 1/2	1 13/16	8.40	14 1/16	6 3/4
11/16	2.50	8	3 7/8	1 27/32	8.60	14 1/16	6 3/4
23/32	2.60	8	3 7/8	1 7/8	8.80	15	7
3/4	2.70	8 3/8	4 3/16	1 29/32	9.00	15	7
25/32	2.80	8 3/8	4 3/16	1 15/16	9.20	15	7
13/16	2.90	8 1/8	4 9/16	1 31/32	9.40	15	7
27/32	3.05	8 1/8	4 9/16	2	9.60	15	7
7/8	3.20	9 3/16	4 1/4	2 1/16	10.00	15 1/2	7 1/4
29/32	3.35	9 3/16	4 7/8	2 1/8	10.40	15 1/2	7 1/4
15/16	3.50	10	5 1/8	2 3/16	10.80	15 1/2	7 1/4
31/32	3.65	10	5 1/8	2 1/4	11.30	15 1/2	7 1/4
1	3.80	10 3/8	5 7/16	2 5/16	11.80	16	7 1/2
1 1/32	3.95	10 3/8	5 7/16	2 3/8	12.30	16	7 1/2
1 1/16	4.10	10 3/8	5 5/8	2 7/16	12.80	16	7 1/2
1 3/32	4.25	10 3/8	5 5/8	2 1/2	13.40	16	7 1/2
1 1/8	4.40	10 1/8	5 13/16	2 9/16	14.00	16 1/2	7 3/4
1 5/32	4.55	10 7/8	5 13/16	2 5/8	14.60	16 1/2	7 3/4
1 3/16	4.70	11 1/8	6	2 11/16	15.40	16 1/2	7 3/4
1 7/32	4.85	11 1/8	6	2 3/4	16.20	16 1/2	7 3/4
1 1/4	5.00	11 5/8	6 1/8	2 13/16	17.00	17	8
1 9/32	5.15	11 5/8	6 1/8	2 7/8	17.80	17	8
1 5/16	5.30	12 1/16	6 1/4	2 15/16	18.60	17	8
1 11/32	5.50	12 1/16	6 1/4	3	19.40	17	8
1 3/8	5.70	12 1/16	6 5/16	.....	.....	.....	.....

Socket for Morse Taper.

Number of Socket.....	1	2	3	4	5
Diameter of Reamer...inches	1/4 to 19/32	5/8 to 29/32	15/16 to 1 7/32	1 1/4 to 1 23/32	1 3/4 to 3

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THE WM. PATTISON SUPPLY CO. CLEVELAND

FLUTED AND ROSE CHUCKING REAMERS.

Straight Shank.

FLUTED.

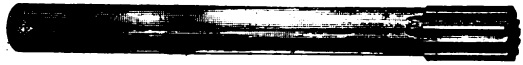

FIG. 2378.

ROSE.

FIG. 2379.

Diameter Inches.	Price, Fig. 2378 Each.	Price, Fig. 2379 Each.	Full Length, Inches.	Length of Flute Fig. 2378 Inches.	Diameter, Inches.	Price, Fig. 2378 Each.	Price, Fig. 2379 Each.	Full Length Inches.	Length of Flute Fig. 2378 Inches.
1/4	.90	.80	6	7/8	1 57/64	2.85	2.65	11	1 3/4
9/32	.95	.85	6	7/8	1 1/4	2.90	2.70	11 1/2	1 7/8
5/16	1.00	.90	6	7/8	1 5/16	3.05	2.85	11 1/2	1 7/8
11/32	1.05	.95	6	7/8	1 3/8	3.20	3.00	12	2
3/8	1.10	1.00	7	1	1 7/16	3.35	3.15	12	2
13/32	1.15	1.05	7	1	1 1/2	3.50	3.30	12 1/2	2 1/8
7/16	1.20	1.10	7	1	1 9/16	3.65	3.45	12 1/2	2 1/8
15/32	1.25	1.15	7	1	1 5/8	3.80	3.60	13	2 1/4
1/2	1.30	1.20	8	1 1/8	1 11/16	4.00	3.75	13	2 1/4
17/32	1.35	1.25	8	1 1/8	1 3/4	4.20	3.90	13 1/2	2 3/8
9/16	1.40	1.30	8	1 1/8	1 13/16	4.40	4.05	13 1/2	2 3/8
19/32	1.45	1.35	8	1 1/8	1 7/8	4.60	4.20	14	2 1/2
5/8	1.50	1.40	9	1 1/4	1 15/16	4.80	4.40	14	2 1/2
21/32	1.55	1.45	9	1 1/4	2	5.00	4.60	14	2 1/2
11/16	1.60	1.50	9	1 1/4	2 1/16	5.30	4.90	14	2 1/2
23/32	1.65	1.55	9	1 1/4	2 1/8	5.60	5.20	14 1/2	2 5/8
3/4	1.70	1.60	9 1/2	1 3/8	2 3/16	5.90	5.50	14 1/2	2 5/8
25/32	1.80	1.65	9 1/2	1 3/8	2 1/4	6.20	5.80	14 1/2	2 5/8
13/16	1.85	1.70	9 1/2	1 3/8	2 5/16	6.50	6.10	14 1/2	2 5/8
27/32	1.90	1.75	9 1/2	1 3/8	2 3/8	6.80	6.40	15	2 3/4
7/8	2.00	1.80	10	1 1/2	2 7/16	7.10	6.80	15	2 3/4
29/32	2.10	1.90	10	1 1/2	2 1/2	7.40	7.20	15	2 7/8
15/16	2.15	1.95	10	1 1/2	2 9/16	7.70	7.50	15	2 7/8
31/32	2.25	2.05	10	1 1/2	2 5/8	8.00	7.80	15 1/2	3
1	2.30	2.10	10 1/2	1 5/8	2 11/16	8.35	8.10	15 1/2	3
1 1/32	2.40	2.20	10 1/2	1 5/8	2 3/4	8.70	8.40	15 1/2	3
1 1/16	2.45	2.25	10 1/2	1 5/8	2 13/16	9.00	8.80	15 1/2	3
1 3/32	2.50	2.35	10 1/2	1 5/8	2 7/8	9.35	9.20	16	3 1/4
1 1/8	2.60	2.40	11	1 3/4	2 15/16	9.70	9.60	16	3 1/4
1 5/32	2.70	2.50	11	1 3/4	3	10.00	10.00	16	3 1/4
1 3/16	2.75	2.55	11	1 3/4	.....	.....	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 883

FLUTED AND ROSE CHUCKING REAMERS.

Taper Shank.

FLUTED.

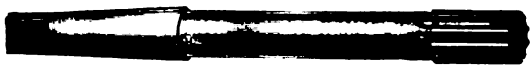

FIG. 2380.

ROSE.

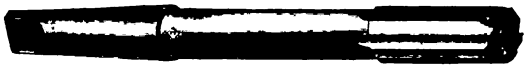

FIG. 2381.

Diameter, Inches.	Price, Each.	Length, Inches.	Length of Flutes, Fig. 2380, Inches.	Length of Flutes, Fig. 2381, Inches.	Diameter, Inches.	Price, Each.	Length, Inches.	Length of Flutes, Fig. 2380, Inches.	Length of Flutes, Fig. 2381, Inches.
1/4	1.20	6	7/8	1 1/2	1 7/32	3.40	11	1 3/4	2 7/8
9/32	1.20	6	7/8	1 1/2	1 1/4	3.50	11 1/2	1 7/8	3
5/16	1.30	6	7/8	1 1/2	1 5/16	3.70	11 1/2	1 7/8	3
11/32	1.30	6	7/8	1 1/2	1 3/8	3.95	12	2	3 1/4
3/8	1.45	7	1	1 3/4	1 7/16	4.15	12	2	3 1/4
13/32	1.50	7	1	1 3/4	1 1/2	4.40	12 1/2	2 1/8	3 1/2
7/16	1.55	7	1	1 3/4	1 9/16	4.60	12 1/2	2 1/8	3 1/2
15/32	1.60	7	1	1 3/4	1 5/8	4.85	13	2 1/4	3 3/4
1/2	1.65	8	1 1/8	2	1 11/16	5.10	13	2 1/4	3 3/4
17/32	1.70	8	1 1/8	2	1 3/4	5.30	13 1/2	2 3/8	4
9/16	1.75	8	1 1/8	2	1 13/16	5.50	13 1/2	2 3/8	4
19/32	1.80	8	1 1/8	2	1 7/8	5.70	14	2 1/2	4 1/4
5/8	1.90	9	1 1/4	2 1/4	1 15/16	5.95	14	2 1/2	4 1/4
21/32	1.95	9	1 1/4	2 1/4	2	6.20	14	2 1/2	4 1/4
11/16	2.00	9	1 1/4	2 1/4	2 1/16	6.50	14 1/2	2 3/8	4 1/2
23/32	2.10	9	1 1/4	2 1/4	2 1/8	6.80	14 1/2	2 3/8	4 1/2
3/4	2.20	9 1/2	1 3/8	2 1/4	2 3/16	7.10	14 1/2	2 3/8	4 1/2
25/32	2.30	9 1/2	1 3/8	2 1/2	2 1/4	7.40	14 1/2	2 3/4	4 1/2
13/16	2.40	9 1/2	1 3/8	2 1/2	2 5/16	7.70	15	3	4 3/4
27/32	2.50	9 1/2	1 3/8	2 1/2	2 3/8	8.00	15	3	4 3/4
7/8	2.55	10	1 1/2	2 5/8	2 7/16	8.40	15	3	4 3/4
29/32	2.60	10	1 1/2	2 5/8	2 1/2	8.80	15	3	4 3/4
15/16	2.65	10	1 1/2	2 5/8	2 9/16	9.20	15 1/2	3 1/4	5
31/32	2.70	10	1 1/2	2 5/8	2 5/8	9.60	15 1/2	3 1/4	5
1	2.75	10 1/2	1 5/8	2 3/4	2 11/16	10.00	15 1/2	3 1/4	5
1 1/32	2.80	10 1/2	1 5/8	2 3/4	2 3/4	10.40	15 1/2	3 1/4	5
1 1/16	2.85	10 1/2	1 5/8	2 3/4	2 13/16	10.80	16	3 1/2	5 1/4
1 3/32	2.95	10 1/2	1 5/8	2 3/4	2 7/8	11.20	16	3 1/2	5 1/4
1 1/8	3.10	11	1 3/4	2 7/8	2 15/16	11.60	16	3 1/2	5 1/4
1 5/32	3.20	11	1 3/4	2 7/8	3	12.00	16	3 1/2	5 1/4
1 3/16	3.30	11	1 3/4	2 7/8	.....	.....	.....	.....	.....

Socket for Morse Taper.

Number of Socket.....	1	2	3	4	5
Diameter of Reamer...inches	1/4 to 13/32	5/8 to 29/32	15/16 to 1 7/32	1 1/4 to 1 11/16	1 3/4 to 3

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

EXPANSION AND TAPER REAMERS.

EXPANSION.

FIG. 2382.

Diameter. Inches.	Price, Each.	Length, Inches.	Length of Flutes, Inches.	Diameter, Inches.	Price, Each.	Length, Inches.	Length of Flutes, Inches.
3/8	2.00	4 1/4	2 1/8	1 3/8	7.00	10 3/8	5 7/8
7/16	2.15	4 1/2	2 1/4	1 7/16	7.50	10 5/8	5 15/16
1/2	2.35	5	2 1/2	1 1/2	8.00	10 3/4	6
9/16	2.50	5 1/8	2 3/8	1 9/16	8.50	11 1/4	6 1/4
5/8	2.75	5 1/4	3 1/8	1 5/8	9.00	11 1/4	6 1/4
11/16	3.00	6 1/4	3 1/2	1 11/16	9.30	11 3/4	6 1/8
3/4	3.25	6 3/8	3 5/8	1 3/4	9.60	11 1/8	6 1/8
13/16	3.50	7 1/8	4	1 13/16	9.90	11 3/8	6 1/8
7/8	4.15	7 9/16	4 5/16	1 7/8	10.20	11 3/4	6 1/4
15/16	4.25	8 1/16	4 9/16	1 15/16	10.50	12	6 7/8
1	4.60	8 1/2	4 7/8	2	10.80	12 1/4	7
1 1/16	5.00	9	5 1/8	2 1/8	11.40	12 5/8	7 1/8
1 1/8	5.35	9 1/4	5 1/4	2 1/4	11.90	13	7 1/4
1 3/16	5.70	9 9/16	5 3/8	2 3/8	12.40	13 1/2	7 3/8
1 1/4	6.10	9 3/4	5 1/2	2 1/2	13.00	14	7 1/2
1 5/16	6.80	10 1/8	5 3/4	.....	.....	.....	.....

These Reamers always furnished with Pilot Point. They are not guaranteed to stand more than .010 expansion from size stamped on shank.

TAPER, FOR LOCOMOTIVE WORK.

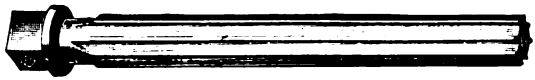

FIG. 2383.

Diameter at Small End of Flutes, Inches.	Price, Each.	Length Over all, Inches.	Length of Flutes, Inches.	Price, additional Length, Per Inch.	Diameter at Small End of Fluted, Inches.	Price, Each.	Length Over all, Inches.	Length of Flutes, Inche	Price, Additional Length, Per Inch.
1/4	2.20	5 5/16	4	.43	1 1/16	4.50	11 1/4	9	.42
5/16	2.20	5 5/16	4	.43	1 1/8	4.80	11 1/4	9	.44
3/8	2.25	5 5/16	4	.44	1 3/16	5.10	11 1/4	9	.46
7/16	2.25	5 5/16	4	.44	1	5.40	11 1/2	9	.48
1/2	2.30	6 5/16	5	.40	1 1/16	5.70	12	9	.50
9/16	2.40	6 5/16	5	.40	1 1/8	6.20	12 1/2	10	.54
5/8	2.55	7 5/16	6	.40	1 3/16	6.60	12 1/2	10	.58
11/16	2.70	7 5/16	6	.40	1 1/4	7.00	12 1/4	10	.60
3/4	3.00	8 5/16	7	.38	1 5/16	7.60	14 1/2	12	.63
13/16	3.20	9 5/16	8	.38	1 3/8	8.00	14 1/2	12	.65
7/8	3.50	9 5/16	8	.38	1 7/16	8.50	14 1/2	12	.67
15/16	3.80	9 5/16	8	.38	1 1/2	9.00	14 1/2	12	.70
1	4.10	9 5/16	8	.40	.....	.....	.....	.....	.....

Taper 1/16 inch or 3/32 inch per foot of length.

If collar on shank is more than 1/16 inch larger than large diameter of flutes, price will be the same as reamer of same diameter as collar.

Reamers of any length or taper made to order at reasonable prices.

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THE W. M. PATTISON SUPPLY CO. 885 CLEVELAND

TAPER REAMERS, FOR BRIDGE BUILDERS.

STANDARD.

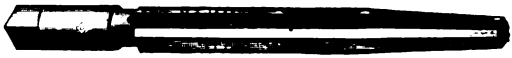

FIG. 2384.

TAPER SHANK

FIG. 2385.

Standard Taper Reamers.

DIAMETER AT INCHES. A	B	C	Price, Each.	Length of Flutes, Inches.	Length of TaperedEnd, Inches.	Length Over All, Inches.
$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	2.75	$5\frac{1}{2}$	3	$8\frac{1}{8}$
$\frac{9}{16}$	$\frac{9}{16}$	$\frac{5}{16}$	2.80	$5\frac{1}{2}$	3	$8\frac{1}{8}$
$\frac{5}{8}$	$\frac{5}{8}$	$\frac{11}{32}$	2.90	$6\frac{1}{2}$	3	$9\frac{1}{8}$
$\frac{11}{16}$	$\frac{11}{16}$	$\frac{3}{8}$	3.00	$6\frac{1}{2}$	3	$9\frac{1}{8}$
$\frac{3}{4}$	$\frac{3}{4}$	$\frac{7}{16}$	3.10	7	3	$10\frac{1}{2}$
$\frac{13}{16}$	$\frac{13}{16}$	$\frac{1}{2}$	3.30	7	3	$10\frac{1}{2}$
$\frac{7}{8}$	$\frac{7}{8}$	$\frac{9}{16}$	3.50	7	3	$10\frac{5}{8}$
$\frac{15}{16}$	$\frac{15}{16}$	$\frac{5}{8}$	3.70	7	3	$10\frac{5}{8}$
1	1	$\frac{11}{16}$	3.90	7	3	$10\frac{5}{8}$
$1\frac{1}{16}$	$1\frac{1}{16}$	$\frac{23}{32}$	4.00	7	3	$10\frac{5}{8}$
$1\frac{1}{8}$	$1\frac{1}{8}$	$\frac{3}{4}$	4.20	7	3	$10\frac{5}{8}$
$1\frac{3}{16}$	$1\frac{3}{16}$	$\frac{25}{32}$	4.40	7	3	$10\frac{5}{8}$
$1\frac{1}{4}$	$1\frac{1}{4}$	$\frac{7}{8}$	4.60	7	3	$10\frac{5}{8}$

Shanks of these Reamers are $\frac{23}{32}$ in. diameter up to $\frac{13}{16}$ in. inclusive, and from $\frac{7}{8}$ in. to $1\frac{1}{4}$ in. are $\frac{13}{16}$ in. diameter.

Taper Shank Taper Reamers.

DIAMETER AT INCHES. A	B	C	Price, Each.	Taper Shank Number.	Length Over All, Inches.	Length of Flutes, Inches.
$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	2.75	2	9	$5\frac{1}{2}$
$\frac{9}{16}$	$\frac{9}{16}$	$\frac{5}{16}$	2.80	2	9	$5\frac{1}{2}$
$\frac{5}{8}$	$\frac{5}{8}$	$\frac{11}{32}$	2.90	2	10	$6\frac{1}{2}$
$\frac{11}{16}$	$\frac{11}{16}$	$\frac{3}{8}$	3.00	3	11	$6\frac{1}{2}$
$\frac{3}{4}$	$\frac{3}{4}$	$\frac{7}{16}$	3.10	3	12	7
$\frac{13}{16}$	$\frac{13}{16}$	$\frac{1}{2}$	3.30	3	12	7
$\frac{7}{8}$	$\frac{7}{8}$	$\frac{9}{16}$	3.50	3	12	7
$\frac{15}{16}$	$\frac{15}{16}$	$\frac{5}{8}$	3.70	3	12	7
1	1	$\frac{11}{16}$	3.90	3	12	7
$1\frac{1}{16}$	$1\frac{1}{16}$	$\frac{23}{32}$	4.00	3	12	7
$1\frac{1}{8}$	$1\frac{1}{8}$	$\frac{3}{4}$	4.20	3	12	7
$1\frac{3}{16}$	$1\frac{3}{16}$	$\frac{25}{32}$	4.40	3	12	7
$1\frac{1}{4}$	$1\frac{1}{4}$	$\frac{7}{8}$	4.60	3	12	7

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

REAMERS.

STANDARD TAPER-PIN REAMER.

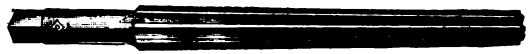

FIG. 2388.

Size Number.	Price, Each.	Diameter at Small End. Inches.	Length of Flutes. Inches.	Total Length. Inches.
0	1.00	.135	1½	2½
1	1.00	.146	1¾	2½
2	1.25	.162	2	3
3	1.50	.183	2¼	3½
4	1.75	.208	2½	4
5	2.00	.240	3	4½
6	2.25	.279	3⅝	5
7	2.50	.331	4½	6
8	3.00	.398	5¼	6¾
9	3.50	.482	6⅛	8
10	4.00	.581	7	9
11	4.75	.706	8¼	11½
12	5.50	.842	10	13⅜
13	6.50	1.009	12	16

Taper ¼ inch per foot.

These Reamers are all of the same taper and the point of each reamer will enter the hole reamed by the next size smaller.

BIT STOCK TAPER REAMERS.

FIG. 2387.

DIAMETER. Nominal.	DIAMETER. Exact.	Price, Each.	Diameter at Small End. Inches.	Length of Flutes. Inches.	Total Length. Inches.
1/4	.312	.45	.167	1¾	3⅞
5/16	.375	.50	.219	1⅞	4
3/8	.438	.55	.271	2	4⅛
7/16	.500	.60	.323	2⅛	4¼
1/2	.563	.70	.375	2¼	4⅜
9/16	.646	.80	.448	2⅜	4½
5/8	.708	.90	.500	2½	4⅝
11/16	.770	1.05	.552	2⅝	4¾
3/4	.833	1.20	.604	2¾	4⅞
13/16	.896	1.40	.656	2⅞	5
7/8	.958	1.60	.708	3	5⅛
15/16	1.021	1.80	.760	3⅛	5¼
1	1.083	2.00	.813	3¼	5⅜

Taper 1 inch per foot.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 887

PRATT AND WHITNEYS' ARBORS FOR SHELL REAMERS.

FIG. 2388.

FIG. 2389.

Number.	Price, Each.	Fitting Sizes, Inches.	Full Length, Inches.	Number.	Price, Each.	Fitting Sizes, Inches.	Full Length Inches.
1	1.20	$\frac{1}{4}$ to $\frac{5}{16}$	6	8	2.70	$1\frac{1}{16}$ to 2	12
2	1.40	$\frac{3}{8}$ to $\frac{7}{16}$	7	9	3.00	$2\frac{1}{16}$ to $2\frac{1}{2}$	13
3	1.60	$\frac{1}{2}$ to $\frac{9}{16}$	8	10	3.40	$2\frac{9}{16}$ to 3	14
4	1.80	$\frac{5}{8}$ to $1\frac{1}{16}$	9	11	5.00	$3\frac{1}{16}$ to $3\frac{1}{2}$	15
5	2.00	$\frac{3}{4}$ to $1\frac{1}{16}$	$9\frac{1}{2}$	12	7.00	$3\frac{9}{16}$ to 4	16
6	2.20	1 to $1\frac{1}{4}$	10	13	9.00	$4\frac{1}{16}$ to $4\frac{1}{2}$	17
7	2.40	$1\frac{5}{16}$ to $1\frac{5}{8}$	11	14	12.00	$4\frac{9}{16}$ to 5	18

Dimensions of Pratt and Whitney Company Reamers for Morse Standard Taper Socket.

Number.	Diameter, Small End, Inches.	Diameter, Large End, Inches.	Gauge, Diameter Large End, Inches.	Gauge, Length, Inches.	Length of Flutes, Inches.	Total Length, Inches.	Taper, Per Foot, Inches.
1	.365	.525	.475	$2\frac{1}{8}$	3	$5\frac{1}{4}$	.600
2	.573	.749	.699	$2\frac{1}{2}$	$3\frac{1}{2}$	$6\frac{1}{4}$	.602
3	.779	.982	.936	$3\frac{5}{16}$	4	$7\frac{1}{2}$	.602
4	1.026	1.283	1.231	4	5	$8\frac{3}{4}$	.623
5	1.486	1.796	1.746	5	6	10	.630
6	2.117	2.566	2.500	$7\frac{1}{4}$	$8\frac{1}{2}$	$12\frac{1}{2}$	.626

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PRATT AND WHITNEYS' SHELL REAMERS.

FLUTED SHELL.

FIG. 2390.

ROSE SHELL.

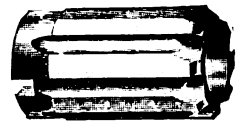

FIG. 2391.

Diameter Inches.	Length Inches.	Diameter Hole. Large End. Inches.	Price Each.	Diameter Inches.	Length Inches.	Diameter Hole. Large End. Inches.	Price Each.
1/4	1 1/2	1/8	1.10	2 3/16	3 3/4	1 1/4	5.80
5/16	1 1/2	1/8	1.10	2 1/4	3 3/4	1 1/4	6.00
3/8	1 1/2	3/16	1.20	2 5/16	3 3/4	1 1/4	6.20
7/16	1 3/4	3/16	1.30	2 3/8	3 3/4	1 1/4	6.40
1/2	2	1/4	1.40	2 7/16	3 3/4	1 1/2	6.60
9/16	2	1/4	1.50	2 1/2	3 3/4	1 1/2	6.80
5/8	2 1/4	3/8	1.60	2 9/16	4	1 1/2	7.00
11/16	2 1/4	3/8	1.65	2 5/8	4	1 1/2	7.30
3/4	2 1/4	1/2	1.70	2 11/16	4	1 1/2	7.60
13/16	2 1/2	1/2	1.75	2 3/4	4	1 1/2	8.00
7/8	2 1/2	1/2	1.80	2 13/16	4	1 1/2	8.40
15/16	2 1/2	1/2	1.85	2 7/8	4	1 1/2	8.80
1	2 3/4	5/8	1.90	2 15/16	4	1 1/2	9.20
1 1/16	2 3/4	5/8	1.95	3	4	1 1/2	9.60
1 1/8	2 3/4	5/8	2.00	3 1/16	4 1/2	1 1/2	9.90
1 3/16	2 3/4	5/8	2.10	3 1/8	4 1/2	1 1/2	10.20
1 1/4	2 3/4	5/8	2.20	3 3/16	4 1/2	1 1/2	10.60
1 5/16	3	3/4	2.40	3 1/4	4 1/2	1 1/2	11.00
1 3/8	3	3/4	2.60	3 5/16	4 1/2	1 1/2	11.50
1 7/16	3	3/4	2.80	3 3/8	4 1/2	1 1/2	12.00
1 1/2	3	3/4	2.95	3 7/16	4 1/2	1 1/2	12.50
1 9/16	3	3/4	3.15	3 1/2	4 1/2	1 1/2	13.00
1 5/8	3	3/4	3.40	3 9/16	5	1 1/2	13.50
1 11/16	3 1/2	1	3.65	3 5/8	5	1 1/2	14.00
1 3/4	3 1/2	1	4.00	3 11/16	5	1 1/2	14.50
1 13/16	3 1/2	1	4.40	3 3/4	5	1 1/2	15.00
1 7/8	3 1/2	1	4.70	3 13/16	5	1 1/2	15.50
1 15/16	3 1/2	1	5.00	3 7/8	5	1 1/2	16.00
2	3 1/2	1	5.20	3 15/16	5	1 1/2	17.00
2 1/16	3 3/4	1 1/4	5.40	4	5	1 1/2	18.00
2 1/8	3 3/4	1 1/4	5.60	.....	.....	.....	.....

Prices of Standard Shell and Rose Reamers to 6 inches quoted upon application.

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THE W. M. PATTISON SUPPLY CO. 889 CLEVELAND

PRATT AND WHITNEYS' STANDARD HAND REAMERS.

Medium Length.

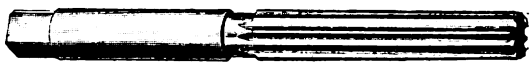

FIG. 2392.

Diameter, Inches.	Total Lengths, Inches.	Length of Flutes, Inches.	Price, Each.	Diameter, Inches.	Total Length, Inches.	Length of Flutes, Inches.	Price, Each.
1/8	3 1/4	1 1/2	1.00	1 9/16	11 1/4	6 3/16	6.30
5/32	3 3/8	1 5/8	1.10	1 5/8	11 1/2	6 3/8	6.75
3/16	3 1/2	1 3/4	1.20	1 11/16	11 3/4	6 1/2	7.15
7/32	3 5/8	1 7/8	1.25	1 3/4	12	6 5/8	7.55
1/4	3 3/4	2	1.30	1 13/16	12 1/4	6 3/4	7.95
5/16	4 1/4	2 1/4	1.40	1 7/8	12 1/2	6 7/8	8.35
3/8	4 3/4	2 1/2	1.50	1 15/16	12 3/4	7	8.75
7/16	5 1/4	2 3/4	1.60	2	13	7 1/16	9.15
1/2	5 3/4	3	1.75	2 1/16	13 1/8	7 1/8	9.60
9/16	6 1/8	3 3/16	1.90	2 1/8	13 1/4	7 3/16	10.00
5/8	6 3/8	3 3/8	2.05	2 3/16	13 3/8	7 1/4	10.50
11/16	6 7/8	3 9/16	2.20	2 1/4	13 1/2	7 5/16	11.00
3/4	7 1/4	3 3/4	2.40	2 5/16	13 5/8	7 3/8	11.60
13/16	7 5/8	3 15/16	2.60	2 3/8	13 3/4	7 7/16	12.20
7/8	8	4 1/8	2.85	2 7/16	13 7/8	7 1/2	12.85
15/16	8 3/8	4 5/16	3.20	2 1/2	14	7 9/16	13.50
1	8 3/4	4 1/2	3.50	2 9/16	14 1/8	7 5/8	14.15
1 1/16	9 1/8	4 11/16	3.75	2 5/8	14 1/4	7 11/16	14.85
1 1/8	9 7/16	4 7/8	4.00	2 11/16	14 3/8	7 3/4	15.55
1 3/16	9 3/4	5 1/16	4.25	2 3/4	14 1/2	7 13/16	16.25
1 1/4	10	5 1/4	4.50	2 13/16	14 5/8	7 7/8	17.00
1 5/16	10 1/4	5 7/16	4.75	2 7/8	14 3/4	7 15/16	17.75
1 3/8	10 1/2	5 5/8	5.10	2 15/16	14 7/8	8	18.50
1 7/16	10 3/4	5 13/16	5.50	3	15	8 1/16	19.25
1 1/2	11	6	5.90	.....	.....	.....	.....

Prices of thirty-second sizes intermediate, above 1/4 inch, and by sixty-fourths, same as next size larger.

Special sizes and lengths, or sizes larger than those given in list, made to order.

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THE W. M. PATTISON SUPPLY CO. 890 CLEVELAND

PRATT AND WHITNEYS' JOBBERS' REAMERS.

With Morse Taper Shanks.

FIG. 2393.

Diameter Inches.	Full Length Inches.	Length of Flutes. Inches.	Price Each.	Socket for Morse Taper.	Diameter Inches.	Full Length Inches.	Length of Flutes Inches.	Price Each.	Socket for Morse Taper.
1/4	5 3/16	2	1.50		1 3/32	12 3/16	6 5/16	5.90	
9/32	5 3/16	2	1.55		1 7/16	13	6 7/16	6.10	
5/16	5 1/4	2 1/4	1.60		1 5/32	13	6 7/16	6.30	
11/32	5 1/2	2 1/4	1.65		1 1/2	13 1/8	6 1/2	6.50	
3/8	5 1/2 3/16	2 1/2	1.70		1 17/32	13 1/8	6 1/2	6.70	
13/32	5 1/2 3/16	2 1/2	1.80		1 9/16	13 1/8	6 1/2	6.90	No. 4.
7/16	6 1/8	2 3/4	1.85	No. 1.	1 19/32	13 1/8	6 1/2	7.10	
15/32	6 1/8	2 3/4	1.95		1 5/8	13 1/8	6 1/2	7.30	
1/2	6 7/16	3	2.00		1 21/32	13 1/8	6 1/2	7.50	
17/32	6 7/16	3	2.10		1 11/16	14 1/16	6 3/4	7.70	
9/16	6 9/16	3 1/4	2.15		1 23/32	14 1/16	6 3/4	7.85	
19/32	6 9/16	3 1/4	2.25		1 3/4	14 1/16	6 3/4	8.00	
5/8	7 9/16	3 1/2	2.30		1 25/32	14 1/16	6 3/4	8.20	
21/32	7 9/16	3 1/2	2.40		1 13/16	14 1/16	6 3/4	8.40	
11/16	8	3 7/8	2.50		1 27/32	14 1/16	6 3/4	8.60	
23/32	8	3 7/8	2.60		1 7/8	15	7	8.80	
3/4	8 3/8	4 3/16	2.70	No. 2.	1 29/32	15	7	9.00	
25/32	8 3/8	4 3/16	2.80		1 15/16	15	7	9.20	
13/16	8 3/16	4 9/16	2.90		1 31/32	15	7	9.40	
27/32	8 3/16	4 9/16	3.05		2	15	7	9.60	
7/8	9 3/16	4 7/8	3.20		2 1/16	15 1/2	7 1/2	10.00	
29/32	9 3/16	4 7/8	3.35		2 1/8	15 1/2	7 1/2	10.40	
15/16	10	5 1/8	3.50		2 3/16	15 1/2	7 1/2	10.80	
31/32	10	5 1/8	3.65		2 1/4	15 1/2	7 1/2	11.30	No. 5.
1	10 3/8	5 1/16	3.80		2 5/16	16	7 1/2	11.80	
1 1/32	10 3/8	5 7/16	3.95		2 3/8	16	7 1/2	12.30	
1 1/16	10 5/8	5 5/8	4.10	No. 3.	2 7/16	16	7 1/2	12.80	
1 3/32	10 5/8	5 5/8	4.25		2 1/2	16	7 1/2	13.40	
1 1/8	10 7/8	5 13/16	4.40		2 9/16	16 1/2	7 3/4	14.00	
1 5/32	10 7/8	5 13/16	4.55		2 5/8	16 1/2	7 3/4	14.60	
1 3/16	11 1/8	6	4.70		2 11/16	16 1/2	7 3/4	15.40	
1 7/32	11 1/8	6	4.85		2 3/4	16 1/2	7 3/4	16.20	
1 1/4	12 9/16	6 1/8	5.00		2 13/16	17	8	17.00	
1 9/32	12 9/16	6 1/8	5.15		2 7/8	17	8	17.80	
1 5/16	12 1/8	6 1/4	5.30	No. 4.	2 15/16	17	8	18.60	
1 11/32	12 7/16	6 1/4	5.50		3	17	8	19.40	
1 3/8	12 3/8	6 5/16	5.70						

Reamers of any style, size, or length, made to order. Flutes straight or spiral, as desired.

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THE W. M. PATTISON SUPPLY CO. 891 CLEVELAND

PRATT AND WHITNEYS' FLUTED CHUCKING REAMERS.

Straight Shank.

FIG. 2394.

Diameter, Inches.	Length of Flutes, Inches.	Total Length, Inches.	Price, Each.	Diameter, Inches.	Length of Flutes, Inches.	Total Length, Inches.	Price, Each.
¼ less .005	1	6	.90	1 11/16 less .007	2½	13¼	4.00
5/16 less .005	1	6	1.00	1 ¾ less .007	2⅝	13¾	4.20
⅜ less .005	1⅛	7	1.10	1 13/16 less .007	2⅝	13¾	4.40
7/16 less .005	1⅛	7	1.20	1 ⅞ less .007	2¾	14¼	4.60
½ less .005	1¼	8⅛	1.30	1 15/16 less .007	2¾	14¼	4.80
9/16 less .007	1¼	8⅛	1.40	2 less .007	2¾	14¼	5.00
⅝ less .007	1⅜	9⅛	1.50	2 1/16 less .007	2⅞	14¾	5.30
11/16 less .007	1⅜	9⅛	1.60	2 ⅛ less .007	2⅞	14¾	5.60
¾ less .007	1½	9⅝	1.70	2 3/16 less .007	2⅞	14¾	5.90
13/16 less .007	1½	9⅝	1.85	2 ¼ less .007	3	15¼	6.20
⅞ less .007	1¾	10¼	2.00	2 5/16 less .007	3	15¼	6.50
15/16 less .007	1¾	10¼	2.15	2 ⅜ less .007	3	15¼	6.80
1 less .007	1⅞	10¾	2.30	2 7/16 less .007	3⅛	15½	7.10
1 1/16 less .007	1⅞	10¾	2.45	2 ½ less .007	3⅛	15½	7.40
1 ⅛ less .007	2	11¼	2.60	2 9/16 less .007	3⅛	15½	7.70
1 3/16 less .007	2	11¼	2.75	2 ⅝ less .007	3¼	15¾	8.00
1 ¼ less .007	2⅛	11¾	2.90	2 11/16 less .007	3¼	15¾	8.35
1 5/16 less .007	2⅛	11¾	3.05	2 ¾ less .007	3¼	15¾	8.70
1 ⅜ less .007	2¼	12¼	3.20	2 13/16 less .007	3⅜	16	9.00
1 7/16 less .007	2¼	12¼	3.35	2 ⅞ less .007	3⅜	16	9.35
1 ½ less .007	2⅜	12¾	3.50	2 15/16 less .007	3½	16¼	9.70
1 9/16 less .007	2⅜	12¾	3.65	3 less .007	3½	16¼	10.00
1 ⅝ less .007	2½	13¼	3.80	.....	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

PRATT AND WHITNEYS' ROSE CHUCKING REAMERS, STRAIGHT SHANK.

Standard Sizes, or with Allowance for Finishing Cut.

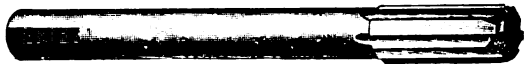

FIG. 2395.

Diameter Inches.	Full Length, Inches.	Length of Flutes, Inches.	Price, Each.	Diameter, Inches.	Full Length, Inches.	Length of Flutes, Inches.	Price, Each.
1/4	6	1 1/2	.80	1 11/16	13	3 3/4	3.75
5/16	6	1 1/2	.90	1 3/4	13 1/2	4	3.90
3/8	7	1 3/4	1.00	1 13/16	13 1/2	4	4.05
7/16	7	1 3/4	1.10	1 7/8	14	4 1/4	4.20
1/2	8	2	1.20	1 15/16	14	4 1/4	4.40
9/16	8	2	1.30	2	14	4 1/4	4.60
5/8	9	2 1/4	1.40	2 1/16	14 1/2	4 1/2	4.90
11/16	9	2 1/4	1.50	2 1/8	14 1/2	4 1/2	5.20
3/4	9 1/2	2 1/2	1.60	2 3/16	14 1/2	4 1/2	5.50
13/16	9 1/2	2 1/2	1.70	2 1/4	14 1/2	4 1/2	5.80
7/8	10	2 5/8	1.80	2 5/16	15	4 3/4	6.10
15/16	10	2 5/8	1.95	2 3/8	15	4 3/4	6.40
1	10 1/2	2 3/4	2.10	2 7/16	15	4 3/4	6.80
1 1/16	10 1/2	2 3/4	2.25	2 1/2	15	4 3/4	7.20
1 1/8	11	2 7/8	2.40	2 9/16	15 1/2	5	7.50
1 3/16	11	2 7/8	2.55	2 5/8	15 1/2	5	7.80
1 1/4	11 1/2	3	2.70	2 11/16	15 1/2	5	8.10
1 5/16	11 1/2	3	2.85	2 3/4	15 1/2	5	8.40
1 3/8	12	3 1/4	3.00	2 13/16	16	5 1/4	8.80
1 7/16	12	3 1/4	3.15	2 7/8	16	5 1/4	9.20
1 1/2	12 1/2	3 1/2	3.30	2 15/16	16	5 1/4	9.60
1 9/16	12 1/2	3 1/2	3.45	3	16	5 1/4	10.00
1 5/8	13	3 3/4	3.60	.....	.....	.....	.....

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PRATT AND WHITNEYS' FLUTED CHUCKING REAMERS.

With Morse Taper Shanks.

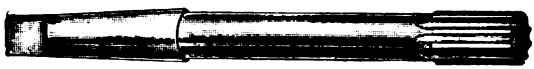

FIG. 2396.

Diameter, Inches.	Length, Inches.	Length of Flutes, Inches.	Price, Each.	Socket for Morse Taper.	Diameter Inches.	Length, Inches.	Length of Flutes, Inches.	Price, Each.	Socket for Morse Taper.
¼ less .005	6	⅞	1.20		1¾ less .005	13½	2⅜	5.30	
5/16 less .005	6	⅞	1.30		1 11/16 less .005	13½	2⅜	5.50	
⅜ less .005	7	1	1.45		1⅞ less .005	14	2½	5.70	
7/16 less .005	7	1	1.55	No. 1.	1 13/16 less .005	14	2½	5.95	
½ less .005	8	1⅛	1.65		2 less .005	14	2½	6.20	
9/16 less .005	8	1⅛	1.75		2 1/16 less .005	14½	2¾	6.50	
⅝ less .005	9	1¼	1.90		2 ⅛ less .005	14½	2¾	6.80	
11/16 less .005	9	1¼	2.00		2 3/16 less .005	14½	2¾	7.10	
¾ less .005	9½	1⅜	2.20	No. 2.	2 ¼ less .005	14½	2¾	7.40	
13/16 less .005	9½	1⅜	2.40		2 5/16 less .005	15	3	7.70	
⅞ less .005	10	1½	2.55		2 ⅜ less .005	15	3	8.00	No. 5.
15/16 less .005	10	1½	2.65		2 7/16 less .005	15	3	8.40	
1 less .005	10½	1⅝	2.75		2 ½ less .005	15	3	8.80	
1 1/16 less .005	10½	1⅝	2.85	No. 3.	2 9/16 less .005	15½	3⅛	9.20	
1 ⅛ less .005	11	1¾	3.10		2 ⅝ less .005	15½	3⅛	9.60	
1 3/16 less .005	11	1¾	3.30		2 11/16 less .005	15½	3⅛	10.00	
1 ¼ less .005	11½	1⅞	3.50		2 ¾ less .005	15½	3⅛	10.40	
1 5/16 less .005	11½	1⅞	3.70		2 13/16 less .005	16	3½	10.80	
1 ⅜ less .005	12	2	3.95		2 ⅞ less .005	16	3½	11.20	
1 7/16 less .005	12	2	4.15		2 15/16 less .005	16	3½	11.60	
1 ½ less .005	12½	2⅛	4.40	No. 4.	3 less .005	16	3½	12.00	
1 9/16 less .005	12½	2⅛	4.60						
1 ⅝ less .005	13	2⅛	4.85						
1 11/16 less .005	13	2⅛	5.10						

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

PRATT AND WHITNEYS' ROSE CHUCKING REAMERS.

With Morse Taper Shanks.

FIG. 2397.

Diameter, Inches.	Full Length Inches.	Length of Flutes, Inches.	Price, Each.	Socket for Morse Taper.	Diameter, Inches.	Full Length Inches.	Length of Flutes, Inches.	Price, Each.	Socket for Morse Taper.
1/4	6	1 1/2	1.20		1 3/4	13 1/2	4	5.30	
5/16	6	1 1/2	1.30		1 13/16	13 1/2	4	5.50	
3/8	7	1 3/4	1.45	No. 1.	1 7/8	14	4 1/4	5.70	
7/16	7	1 3/4	1.55		1 15/16	14	4 1/4	5.95	
1/2	8	2	1.65		2	14	4 1/4	6.20	
9/16	8	2	1.75		2 1/16	14 1/2	4 1/2	6.50	
5/8	9	2 1/4	1.90		2 1/8	14 1/2	4 1/2	6.80	
11/16	9	2 1/4	2.00		2 3/16	14 1/2	4 1/2	7.10	
3/4	9 1/2	2 1/2	2.20	No. 2.	2 1/4	14 1/2	4 1/2	7.40	
13/16	9 1/2	2 1/2	2.40		2 5/16	15	4 3/4	7.70	
7/8	10	2 5/8	2.55		2 3/8	15	4 3/4	8.00	No. 5.
15/16	10	2 5/8	2.65		2 7/16	15	4 3/4	8.40	
1	10 1/2	2 3/4	2.75		2 1/2	15	4 3/4	8.80	
1 1/16	10 1/2	2 3/4	2.85	No. 3.	2 9/16	15 1/2	5	9.20	
1 1/8	11	2 7/8	3.10		2 5/8	15 1/2	5	9.60	
1 3/16	11	2 7/8	3.30		2 11/16	15 1/2	5	10.00	
1 1/4	11 1/2	3	3.50		2 3/4	15 1/2	5	10.40	
1 5/16	11 1/2	3	3.70		2 13/16	16	5 1/4	10.80	
1 3/8	12	3 1/4	3.95		2 7/8	16	5 1/4	11.20	
1 7/16	12	3 1/4	4.15	No. 4.	2 15/16	16	5 1/4	11.60	
1 1/2	12 1/2	3 1/2	4.40		3	16	5 1/4	12.00	
1 9/16	12 1/2	3 1/2	4.60		.....	.....	.....	.....	.....
1 5/8	13	3 3/4	4.85		.....	.....	.....	.....	.....
1 11/16	13	3 3/4	5.10		.....	.....	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 895

PRATT AND WHITNEYS' STANDARD TAPER REAMERS.

For Locomotive Work.

FIG. 2398.

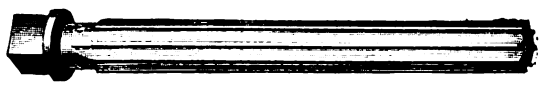

FIG. 2399.

Diameter at End, Inches.	Length of Flutes, Inches.	Total Length, Inches.	Price, Each.	Diameter at End, Inches.	Length of Flutes, Inches.	Total Length, Inches.	Price, Each.
1/4	4	5	2.20	1 1/16	10 1/2	12 5/8	5.70
9/32	4 1/4	5 1/4	2.20	1 1/8	12	14 3/8	6.20
5/16	4 3/4	5 3/4	2.25	1 3/16	12	14 3/8	6.60
11/32	5	6 1/8	2.25	1 1/4	13 1/2	16	7.00
3/8	5 1/2	6 3/4	2.30	1 5/16	13 1/2	16	7.60
13/32	5 3/4	7	2.40	1 3/8	14	16 1/2	8.00
7/16	6	7 3/8	2.55	1 7/16	14	16 1/2	8.50
15/32	6 1/2	7 7/8	2.70	1 1/2	14 1/2	17	9.00
1/2	7	8 3/8	3.00	1 9/16	14 1/2	17	9.60
9/16	7	8 3/8	3.20	1 5/8	15	18	10.20
5/8	7 1/2	9 1/8	3.50	1 11/16	15	18	10.85
11/16	7 1/2	9 1/8	3.80	1 3/4	16	19	11.60
3/4	8 1/2	10 3/8	4.10	1 13/16	16	19	12.40
13/16	8 1/2	10 3/8	4.50	1 7/8	17	20 1/4	13.25
7/8	9 1/2	11 1/2	4.80	1 15/16	17 1/2	20 3/4	14.25
15/16	9 1/2	11 1/2	5.10	2	18	21 3/4	15.25
1	10 1/2	12 5/8	5.40	.....	.....	.....	.....

Taper 1/16 inch per foot. Adopted generally by the railroad companies of the United States.

Special reamers of this or of different taper per foot, or different length of flute, made to order to specification or drawing, at prices corresponding proportionately to above list.

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PRATT AND WHITNEYS' TAPER BRIDGE REAMERS.

FIG. 2400.

Diameter, Inches.			Length of Flutes, Inches.	Length of End Tapered, Inches.	Full Length, Inches.	Price, Each.
9/16	19/32	5/16	7	2	9½	2.80
5/8	21/32	3/8	7	2	9½	2.90
11/16	23/32	7/16	7	2	9½	3.00
3/4	25/32	1/2	7	2	9½	3.10
13/16	27/32	9/16	7	2	9½	3.30
7/8	29/32	5/8	7	2	9½	3.50
15/16	31/32	11/16	7	2	9½	3.70
1	1 1/32	3/4	7	2	9½	3.90
1 1/16	1 3/32	13/16	7	2	9½	4.00

Special sizes made to order.

PRATT AND WHITNEYS' STANDARD TAPER-PIN REAMERS.

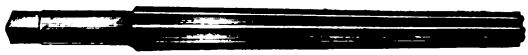

FIG. 2401.

Size, Number.	Diameter at Small End, Inches.	Length of Flutes, Inches.	Total Length Inches.	Price, Each.	Size, Number.	Diameter at Small End, Inches.	Length of Flutes, Inches.	Total Length Inches.	Price, Each.
0	.135	1 5/16	2	1.00	7	.331	4 7/16	6 1/16	2.50
1	.146	1 9/16	2 3/8	1.00	8	.398	5 1/4	7 1/16	3.00
2	.162	1 3/16	2 1/16	1.25	9	.482	6 1/8	8 1/8	3.50
3	.183	2 1/16	3	1.50	10	.581	7	9 1/8	4.00
4	.208	2 3/8	3 7/16	1.75	11	.706	8 1/4	11 1/4	4.75
5	.240	2 7/16	4 1/8	2.00	12	.842	10	13 3/8	5.50
6	.279	3 5/8	5	2.25	13	1.009	12	16	6.50

Taper ¼ Inch per Foot.

Diameter is taken at extreme end.

These Reamer sizes are so arranged that each "overlaps" about ½ inch the size smaller; the taper being the same, the advantage thus secured is obvious. Special or larger sizes made to order.

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PRATT AND WHITNEYS' PLAIN MILLING CUTTERS.

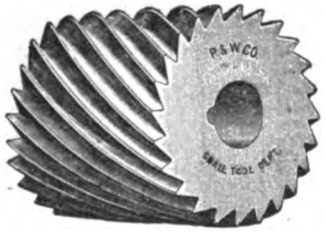

FIG. 2402.

Width of Face, Inches.	Diameter of Cutter, Inches.	Size of Hole, Inches.	Price, Each.	Width of Face, Inches.	Diameter of Cutter, Inches.	Size of Hole, Inches.	Price, Each.
3/16	2½	1	1.30	4	2½	1	5.50
1/4	2½	1	1.40	3/8	2¾	1	1.80
5/16	2½	1	1.50	7/16	2¾	1	1.85
3/8	2½	1	1.60	1/2	2¾	1	1.90
7/16	2½	1	1.70	9/16	2¾	1	2.00
1/2	2½	1	1.80	5/8	2¾	1	2.10
9/16	2½	1	1.90	11/16	2¾	1	2.30
5/8	2½	1	2.00	3/4	2¾	1	2.50
11/16	2½	1	2.10	7/8	2¾	1	2.85
3/4	2½	1	2.20	4	2¾	1¼	6.00
13/16	2½	1	2.30	6	2¾	1¼	10.00
7/8	2½	1	2.40	3/16	3	1	1.35
1	2½	1	2.60	1/4	3	1	1.60
1 1/4	2½	1	2.90	5/16	3	1	1.85
1 1/2	2½	1	3.10	3/8	3	1¼	2.10
1 3/4	2½	1	3.40	7/16	3	1¼	2.25
2	2½	1	3.70	1/2	3	1¼	2.40
2 1/2	2½	1	4.10	9/16	3	1¼	2.55
3	2½	1	4.50	5/8	3	1¼	2.70
3 1/2	2½	1	5.00	11/16	3	1¼	2.85
3/4	3	1¼	3.00	1/2	4	1¼	3.90
7/8	3	1¼	3.30	9/16	4	1¼	4.10
1	3	1¼	3.60	5/8	4	1¼	4.30
1 1/4	3	1¼	4.00	11/16	4	1¼	4.50
1 1/2	3	1¼	4.30	3/4	4	1¼	4.70
1 3/4	3	1¼	4.50	7/8	4	1¼	5.15
2	3	1¼	4.70	1	4	1¼	5.65
2 1/2	3	1¼	5.20	1 1/4	4	1¼	6.25
3	3	1¼	5.40	1 1/2	4	1¼	6.65

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PRATT AND WHITNEYS' PLAIN MILLING CUTTERS.—Continued.

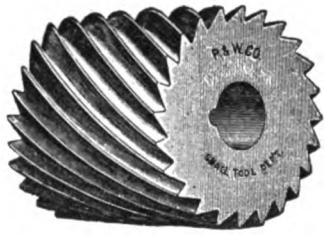

FIG. 2403.

Width of Face, Inches.	Diameter of Cutter, Inches.	Size of Hole, Inches.	Price, Each.	Width of Face, Inches.	Diameter of Cutter, Inches.	Size of Hole, Inches.	Price, Each.
3 1/2	3	1 1/4	5.90	1 3/4	4	1 1/4	7.05
4	3	1 1/4	6.40	2	4	1 1/4	7.45
5	3	1 1/4	7.80	2 1/2	4	1 1/4	8.40
6	3	1 1/4	10.80	3	4	1 1/4	9.00
1/16	3 1/2	1	1.45	3 1/2	4	1 1/4	10.00
1/8	3 1/2	1	1.70	4	4	1 1/4	11.00
5/16	3 1/2	1	2.05	5	4	1 1/4	13.50
3/8	3 1/2	1	2.40	6	4	1 1/4	15.50
7/16	3 1/2	1	2.75	1/2	4	1 1/2	3.90
1/2	3 1/2	1 1/4	3.15	3/4	4	1 1/2	4.70
9/16	3 1/2	1 1/4	3.30	1	4	1 1/2	5.65
5/8	3 1/2	1 1/4	3.45	1 1/4	4	1 1/2	6.25
11/16	3 1/2	1 1/4	3.65	1 1/2	4	1 1/2	6.65
3/4	3 1/2	1 1/4	3.85	1 3/4	4	1 1/2	7.05
7/8	3 1/2	1 1/4	4.35	2	4	1 1/2	7.45
1	3 1/2	1 1/4	4.75	3	4	1 1/2	9.00
1 1/4	3 1/2	1 1/4	5.15	6	4	1 1/2	15.50
1 1/2	3 1/2	1 1/4	5.60	3/8	4 1/2	2	3.35
1 3/4	3 1/2	1 1/4	6.00	1/16	4 1/2	2	3.75
2	3 1/2	1 1/4	6.40	1/2	4 1/2	2	4.10
2 1/2	3 1/2	1 1/4	6.90	9/16	4 1/2	2	4.40
3	3 1/2	1 1/4	7.40	5/8	4 1/2	2	4.60
3 1/2	3 1/2	1 1/4	8.15	11/16	4 1/2	2	4.85
4	3 1/2	1 1/4	9.15	3/4	4 1/2	2	5.10
5	3 1/2	1 1/4	10.40	7/8	4 1/2	2	5.50
6	3 1/2	1 1/4	11.90	1	4 1/2	2	6.00
1/4	4	1 1/4	2.00	1 1/4	4 1/2	2	6.60
5/16	4	1 1/4	2.50	1 1/2	4 1/2	2	7.25
3/8	4	1 1/4	3.00	1 3/4	4 1/2	2	8.00
7/16	4	1 1/4	3.50	2	4 1/2	2	8.75

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PRATT AND WHITNEYS' MILLING CUTTERS.

SIDE OR STRADDLE.

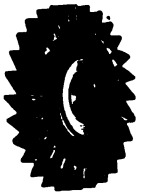

FIG. 2404.

NICKED CUTTING EDGES.

FIG. 2405.

Side or Straddle Milling Cutters.

Diameter Inches.	Width of Face, Inches.	Size of Hole, Inches.	Price.	Diameter Inches.	Width of Face, Inches.	Size of Hole, Inches.	Price.
2	3/16	1/2	2.00	3	1/4	1	2.40
2	1/4	1/2	2.05	3	3/8	1	2.50
2	3/8	1/2	2.10	3	1/2	1	2.80
2	3/16	5/8	2.00	3 1/2	1/4	1	3.35
2	1/4	5/8	2.05	3 1/2	5/16	1	3.50
2	3/8	5/8	2.10	3 1/2	3/8	1	3.65
2 1/2	1/4	1	2.15	3 1/2	1/2	1	3.90
2 1/2	3/16	1	2.15	3 1/2	5/8	1	4.25
2 1/2	3/8	1	2.20	4	1/4	1	4.70
2 1/2	1/2	1	2.25	4	3/8	1	5.00
2 1/2	1/4	7/8	2.15	5	1/4	1	6.00
2 1/2	3/8	7/8	2.20	5	3/8	1	6.50
2 1/2	1/2	7/8	2.25	6	5/16	1 1/4	8.50
2 3/4	1/4	7/8	2.30	6	1	1 1/4	9.00
2 3/4	3/8	7/8	2.30	6	1 5/16	1 1/2	8.50
2 3/4	1/2	7/8	2.35	7	1 1/8	1 1/4	17.00
2 3/4	1/4	1	2.30	8	1 1/4	1 1/4	22.00
2 3/4	3/8	1	2.35	8	1 3/8	1 1/4	23.00
2 3/4	1/2	1	2.35	8	1 1/2	1 1/2	23.00

Milling Cutters with Nicked Cutting Edges.

Diameter Inches.	Width of Face, Inches.	Size of Hole, Inches.	Price, Each.	Diameter, Inches.	Width of Face, Inches.	Size of Hole, Inches.	Price, Each.
2 1/2	2 1/2	1	4.90	4	2 1/2	1 1/4	10.00
2 1/2	3	1	5.40	4	3	1 1/4	10.80
2 1/2	3 1/2	1	6.00	4	3	1 1/2	10.80
2 1/2	4	1	6.60	4	3 1/2	1 1/4	12.00
3	2 1/2	1 1/4	6.25	4	3 1/2	1 1/2	12.00
3	3	1 1/4	6.50	4	4	1 1/4	13.20
3	3 1/2	1 1/4	7.10	4	4	1 1/2	13.20
3	4	1 1/4	7.70	4	5	1 1/4	16.20
3	5	1 1/4	9.40	4	5	1 1/2	16.20
3	6	1 1/4	13.00	4	6	1 1/4	18.60
3 1/2	2 1/2	1 1/4	8.25	4	6	1 1/2	18.60
3 1/2	3	1 1/4	8.90	4 1/2	2 1/2	2	11.50
3 1/2	3 1/2	1 1/4	9.80	4 1/2	3	2	12.75
3 1/2	4	1 1/4	11.00	4 1/2	3 1/2	2	14.25
3 1/2	5	1 1/4	12.50	4 1/2	4	2	15.75
3 1/2	6	1 1/4	14.25	4 1/2	5	2	18.75
4	2 1/2	1 1/4	10.00	4 1/2	6	2	22.25

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THE W. M. PATTISON SUPPLY CO. 900 CLEVELAND

PRATT AND WHITNEYS' MILLING CUTTERS.

Thickness of Screw Slotting Cutters by American Standard Wire Gauge.

Sizes and Prices of Screw-Slotting Cutters.

FIG. 2406.

Diameter of Head, Inches.	Diameter of Screw, Inches.	Thickness of Cutter by American Standard Wire Guage, Number.	Thickness of Cutter in Decimals, Inches.	Diameter of Cutter, Inches.	Size of Hole, Inches.	Price, Each.	Thickness of Cutter by American Standard Wire Guage, Number.	Thickness of Cutter in Decimals, Inches.	Diameter of Cutter, Inches.	Size of Hole, Inches.	Price, Each.
1 1/4	1	5	.182	2 3/4	 1	.70	30	.010	2 3/4	1/2, 5/8, 3/4, 1	.15
1 1/8	7/8	6	.162	2 1/2	 1	.60	32	.008	2 1/2	1/2, 5/8, 3/4, 1	.15
.....	.....	7	.144	2 1/4	 1	.50	34	.006	2 1/4	1/2, 5/8, 3/4, 1	.15
1	3/4	8	.128	2 3/4	... ... 3/4, 1	.45	20	.032	2 1/4	1/2, 5/8, 3/4, ..	.15
7/8	5/8	9	.114	2 1/2	... ... 3/4, 1	.40	21	.028	2 1/4	1/2, 5/8, 3/4, ..	.15
.....	.....	10	.102	2 1/4	... ... 3/4, 1	.35	22	.025	2 1/4	1/2, 5/8, 3/4, ..	.15
13/16	9/16	11	.091	2	... ... 3/4, 1	.30	23	.023	2 1/4	1/2, 5/8, 3/4, ..	.15
3/4, 5/8	1/2, 7/16	12	.081	2	... ... 3/4, 1	.25	24	.020	2 1/4	1/2, 5/8, 3/4, ..	.15
.....	.....	13	.072	2	... ... 3/4, 1	.20	25	.018	2 1/4	1/2, 5/8, 3/4, ..	.15
9/16	3/8	14	.064	2	1/2, 5/8, 3/4, 1	.20	26	.016	2 1/4	1/2, 5/8, 3/4, ..	.15
7/16	5/16	15	.057	2	1/2, 5/8, 3/4, 1	.15	27	.014	2 1/4	1/2, 5/8, 3/4, ..	.15
3/8	1/4	16	.051	2	1/2, 5/8, 3/4, 1	.15	28	.012	2 1/4	1/2, 5/8, 3/4, ..	.15
.....	.....	17	.045	2	1/2, 5/8, 3/4, 1	.15	30	.010	2 1/4	1/2, 5/8, 3/4, ..	.15
.....	.....	18	.040	2	1/2, 5/8, 3/4, 1	.15	32	.008	2 1/4	1/2, 5/8, 3/4, ..	.15
1/4	3/16	19	.035	2	1/2, 5/8, 3/4, 1	.15	34	.006	2 1/4	1/2, 5/8, 3/4, ..	.15
.....	.....	20	.032	2	1/2, 5/8, 3/4, 1	.15	24	.020	1 3/4	1/2, 5/8, 3/4, ..	.12
3/16	1/8	21	.028	2	1/2, 5/8, 3/4, 1	.15	25	.018	1 3/4	1/2, 5/8, 3/4, ..	.12
.....	.....	22	.025	2	1/2, 5/8, 3/4, 1	.15	26	.016	1 3/4	1/2, 5/8, 3/4, ..	.12
1/8	1/16	23	.023	2	1/2, 5/8, 3/4, 1	.15	27	.014	1 3/4	1/2, 5/8, 3/4, ..	.12
.....	.....	24	.020	2	1/2, 5/8, 3/4, 1	.15	28	.012	1 3/4	1/2, 5/8, 3/4, ..	.12
.....	.....	25	.018	2	1/2, 5/8, 3/4, 1	.15	30	.010	1 3/4	1/2, 5/8, 3/4, ..	.12
.....	.....	26	.016	2	1/2, 5/8, 3/4, 1	.15	32	.008	1 3/4	1/2, 5/8, 3/4, ..	.12
.....	.....	27	.014	2	1/2, 5/8, 3/4, 1	.15	34	.006	1 3/4	1/2, 5/8, 3/4, ..	.12
.....	.....	28	.012	2	1/2, 5/8, 3/4, 1	.15	.....	.....	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. 901 CLEVELAND

PRATT AND WHITNEYS' MILLING CUTTERS.

METAL SLITTING CUTTER.

FIG. 2407.

ANGULAR CUTTER.

FIG. 2408.

Metal Slitting Cutters.

Diameter Inches.	Thickness, Inches.	Size of Hole, Inches.	Price, Each.	Diameter, Inches.	Thickness, Inches.	Size of Hole, Inches.	Price, Each.
2½	1/32	7/8 or 1	1.00	4	1/16	1	1.25
2½	3/64	7/8 or 1	1.00	4	3/32	1	1.20
2½	1/16	7/8 or 1	.90	4	1/8	1	1.30
2½	3/32	7/8 or 1	.90	4	5/32	1	1.40
2½	1/8	7/8 or 1	.90	4	3/16	1	1.60
2½	5/32	7/8 or 1	1.10	5	1/16	1	1.80
3	1/32	1	1.25	5	3/32	1	1.60
3	3/64	1	1.10	5	1/8	1	1.50
3	1/16	1	1.00	5	5/32	1	1.90
3	3/32	1	1.00	5	3/16	1	2.30
3	1/8	1	1.00	6	1/8	1	2.70
3	5/32	1	1.15	6	3/16	1	3.50
4	3/64	1	1.45	7	1/8	1	3.80

Angular and Spiral Mill Cutters.

Diameter ..... inches	2½	2¾	3
Thickness ..... inches	½	½	½
Hole ..... inches	1	1	1¼
Price ..... each	2.70	3.00	3.25

Angular Cutters are furnished in angles of 45, 50, 60, 70 and 80 degrees.

FIG. 2409.

Cutters for Key-Seating and Slotting with Eccentric Relieved Teeth.

These Cutters are made in diameters as large as 24 inches, any desired thickness. The sides are ground concave for clearance.

Prices on application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

PRATT AND WHITNEYS' MILLING CUTTERS.

CONCAVE.

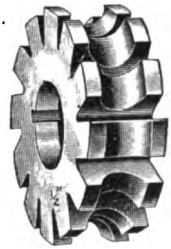

FIG. 2410.

CONVEX.

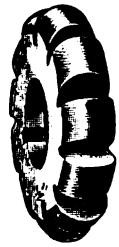

FIG. 2411.

SHELL END MILLS.

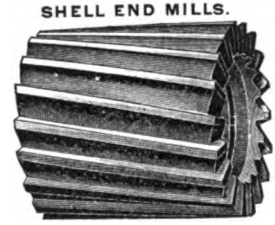

FIG. 2412.

Concave and Convex Milling Cutters.

Diameter of Circle, Inches.	Diameter of Cutter, Inches.	Price, Concave Cutters, Each.	Price, Convex Cutters, Each.	Size of Hole, Inches.
1/8	2	2.40	2.00	1
1/4	2	3.00	2.50	1
3/8	2 1/4	3.70	3.10	1
1/2	2 1/4	4.30	3.60	1
5/8	2 3/4	4.80	4.00	1
3/4	2 3/4	5.25	4.40	1
7/8	3 1/4	5.75	4.80	1
1	3 1/4	6.30	5.25	1
1 1/8	3 1/2	6.90	5.75	1
1 1/4	3 1/2	7.50	6.25	1
1 3/8	3 3/4	8.40	7.00	1
1 1/2	3 3/4	9.30	7.75	1

Shell End Mills.

Diameter Inches.	Length of Cut, Inches.	Diameter Hole, Inches.	Price, Each.	Diameter, Inches.	Length of Cut, Inches.	Diameter Hole, Inches.	Price, Each.
1 1/4	1 1/4	1/2	1.90	2 3/16	2	3/4	4.75
1 5/16	1 1/4	1/2	2.05	2 1/4	2	3/4	5.00
1 3/8	1 1/4	1/2	2.20	2 5/16	2	3/4	5.25
1 7/16	1 1/4	1/2	2.35	2 3/8	2	3/4	5.50
1 1/2	1 1/4	1/2	2.50	2 7/16	2	3/4	5.75
1 5/8	1 1/4	1/2	2.65	2 1/2	2	3/4	6.00
1 5/8	1 1/4	1/2	2.80	2 5/8	2	1	6.25
1 11/16	1 1/4	1/2	3.00	2 5/8	2	1	6.50
1 3/4	1 1/4	1/2	3.20	2 11/16	2	1	6.75
1 13/16	1 1/4	1/2	3.40	2 3/4	2	1	7.00
1 7/8	1 1/4	1/2	3.60	2 13/16	2	1	7.25
1 15/16	1 1/4	1/2	3.80	2 7/8	2	1	7.50
2	1 1/4	1/2	4.00	2 15/16	2	1	7.75
2 1/16	2	3/4	4.25	3	2	1	8.00
2 1/8	2	3/4	4.50	.....	.....	.....	.....

Mills are furnished with either plain or threaded holes.

If threaded hole is wanted, please state threads per inch.

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THE W. M. PATTISON SUPPLY CO. 903 CLEVELAND

INVOLUTE CUTTERS FOR TEETH OF GEAR WHEELS.

FIG. 2413.

Diametral Pitch.	Diameter of Cutter, Inches.	Hole in Cutter, Inches.	Price, Each.	Diametral Pitch.	Diameter, of Cutter, Inches.	Hole in Cutter, Inches.	Price, Each.
*1¼	7¼	1½	32.00	14	2	7/16	2.55
*1½	6½	1½	24.00	*15	2	7/16	2.50
*1¾	5¾	1½	18.50	16	1 15/16	7/16	2.45
2	5	1¼	12.50	18	1 13/16	7/16	2.35
*2¼	4½	1¼	11.25	20	1⅞	7/16	2.30
2½	4¼	1¼	10.00	22	1 13/16	7/16	2.20
*2¾	4	1¼	9.00	24	1¾	7/16	2.10
3	3 13/16	1¼	7.00	26	1¾	7/16	1.95
*3¼	3 13/16	1¼	6.50	28	1¾	7/16	1.80
*3½	3 9/16	1¼	6.25	30	1¾	7/16	1.80
*3¾	3 9/16	1¼	6.00	32	1¾	7/16	1.80
4	3⅜	1¼	5.50	36	1¾	7/16	1.80
*4½	3¼	1¼	5.00	*38	1¾	7/16	1.80
5	3 1/16	1¼	4.50	40	1¾	7/16	1.80
*5½	3 1/16	1¼	4.20	*44	1¾	7/16	1.80
6	2¾	1 1/16	3.90	48	1¾	7/16	1.80
7	2 9/16	1 1/16	3.60	*50	1¾	7/16	1.80
8	2⅜	1 1/16	3.40	*56	1¾	7/16	1.80
9	2 2/16	1 1/16	3.20	*60	1¾	7/16	1.80
10	2⅛	7/16	3.00	*64	1¾	7/16	1.80
11	2 1/16	7/16	2.75	*70	1¾	7/16	1.80
12	2	7/16	2.65	*80	1¾	7/16	1.80
*13	2	7/16	2.60	*120	1¾	7/16	1.80

Cutters marked * are not kept in stock, but are made to order.
All Gears of same Pitch cut with these Cutters are interchangeable.
Eight Cutters made for each Pitch; see following table.

Number	1	2	3	4	5	6	7	8
Wheels will cut..teeth	135 to a Rack.	55 to 134	35 to 54	26 to 34	21 to 25	17 to 20	14 to 16	12 to 13

We are prepared to furnish to order Gear Cutters from 2 to 8 pitch inclusive of half numbers, for the accommodation of those who require a finer division of the number of teeth to be cut with each cutter than can be cut with the regular number. The Nos. 1 to 8, as listed above, are the regular cutters as furnished heretofore. The half numbers are as follows:

Number	1½	2½	3½	4½	5½	6½	7½
Range ..teeth	80 to 134	42 to 54	30 to 34	23 to 25	19 to 20	15 to 16	13

Cutters for Miter and Bevel Gears.

Diametral Pitch	4	5	6	7	8	10	12	14	16	20	24
Diameter ..inches	3⅜	3 1/16	2¾	2 9/16	2½	2⅛	2	2	1 13/16	1⅞	1¾
Hole ..inches	1¼	1¼	1 1/16	1 1/16	1 1/16	⅞	⅞	⅞	⅞	⅞	⅞
Price..each	5.50	4.50	3.90	3.60	3.40	3.00	2.65	2.55	2.45	2.30	2.10

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

END MILLS AND COUNTERBORES.

END MILL.

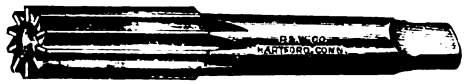

FIG. 2414.

COUNTERBORE.

FIG. 2415.

End Mills, Straight and Spiral Cut, Right or Left.

Diameter of Cut, Inches.	Length of Cut, Inches.	Morse Taper Shank, Number.	Price, Each.	Diameter of Cut, Inches.	Length of Cut, Inches.	Morse Taper Shank, Number.	Price, Each.
1/4	3/4	1	1.15	15/16	1 3/4	2	2.10
5/16	3/4	1	1.15	1	2	2	2.15
3/8	1	1	1.20	3/4	1 1/8	3	1.95
7/16	1	1	1.25	13/16	1 3/4	3	2.00
7/16	1	2	1.40	7/8	1 3/8	3	2.25
1/2	1	2	1.45	15/16	1 3/4	3	2.25
9/16	1	2	1.50	1	2	3	2.30
5/8	1 1/2	2	1.55	1 1/8	2	3	2.35
11/16	1 1/2	2	1.75	1 1/4	2	3	2.45
3/4	1 1/2	2	1.80	1 3/8	2 1/4	3	2.65
13/16	1 3/4	2	1.90	1 1/2	2 1/4	3	2.75
7/8	1 3/4	2	2.10	.....	.....	.....	.....

Counterbores.

Diameter of Screw and Pitch U. S. Standard.		DIAMETER OF HEAD. P. & W. Standard	DIAMETER OF HEAD. Hartford Machine Screw Co., Standard.	Diameter of Guide, Inches.	Length Over All, Inches.	FORM SHANK. Morse Standard Taper, Number.	FORM SHANK. Straight, Round, Diameter, Inches.	Price, Each.
3/16	32	1/4	1/4	.146	4 7/8	1	1/2	1.50
1/4	20	1 1/32	1/2	.184	5	1	1/2	1.50
5/16	18	7/16	7/16	.239	5 3/8	1	1/2	1.50
3/8	16	1/2	9/16	.293	5 3/4	1	1/2	1.50
7/16	14	9/16	5/8	.343	6 5/8	2	5/8	1.60
1/2	13	11/16	3/4	.398	7	2	5/8	1.60
9/16	12	3/4	13/16	.452	7 1/4	2	3/4	1.75
5/8	11	7/8	7/8	.505	7 5/8	2	3/4	2.00
11/16	11	15/16	15/16	.567	10 1/8	3	3/4	2.20
3/4	10	1 1/16	1	.618	10 1/4	3	3/4	2.30
13/16	10	1 1/8	1 1/16	.681	10 7/8	3	1	2.50
7/8	9	1 3/16	1 1/8	.729	11 1/4	3	1	2.50
15/16	9	1 1/4	1 3/16	.791	12	3	1	2.50
1	8	1 3/8	1 1/4	.836	12	3	1	2.80

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FIG. 2416.

FIG. 2417.

Number.	Length of Stock, Inches.	Number of Dies, Per Set.	Number of Taps, Per Set.	Number of Screw Gauge Will Cut.	Diameter, Will Cut, Inches.	Number of Threads to the Inch.	Price, Per Set.
00	6	4	4	.....2, 3, 4, 6	.....	.....64, 56, 48, 60	2.50
00A	6	3	4	.....4, 6, 8, 10	.....	.....36, 32, 32, 24	2.50
00M	6	4	4	.....	.....$\frac{1}{16}$, $\frac{3}{32}$, $\frac{7}{64}$, $\frac{1}{8}$	..... .64, 56, 48, 40	2.50
00N	6	3	4	.....	.....$\frac{1}{8}$, $\frac{9}{64}$, $\frac{5}{32}$, $\frac{3}{16}$	.....36, 32, 32, 24	2.50
0	7½	4	4	.....4, 6, 10, 14	.....	.....48, 40, 32, 24	3.00
0A	7½	3	4	.....10, 12, 14, 16	.....	.....24, 24, 20, 18	3.25
0M	7½	4	4	.....	.....$\frac{7}{64}$, $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$	.....48, 40, 32, 24	3.00
0N	7½	4	4	.....	.....$\frac{3}{16}$, $\frac{7}{32}$, $\frac{1}{4}$, $\frac{9}{32}$	.....24, 24, 20, 18	3.25
1	9	4	4	.....6, 8, 10, 14	.....	.....32, 30, 24, 20	3.25
1A	9	3	4	.....14, 16, 18, 20	.....	.....20, 18, 18, 16	3.40
1M	9	4	4	.....	.....$\frac{9}{64}$, $\frac{5}{32}$, $\frac{3}{16}$, $\frac{1}{4}$	.....32, 30, 24, 20	3.25
1N	9	3	4	.....	.....$\frac{1}{4}$, $\frac{17}{64}$, $\frac{9}{32}$, $\frac{5}{16}$	..... 20, 18, 18, 16	3.40
1	7½	3	6	4, 6, 4, 6, 8, 10	.....	40, 40, 36, 36, 32, 32	4.50
2	9½	3	6	6,8, 10, 12, 14, 16	.....	32, 32, 24, 24, 20, 20	4.50
2	11½	3	3	.....	.....$\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$	.....20, 16, 12	5.00
2A	11½	3	3	.....	.....$\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$	.....20, 18, 16	4.80
2B	11½	3	3	.....	.....$\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$	....18, 16, 14	5.00
2C	11½	5	5	.....	.....$\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$	....20, 18, 16, 14, 12	7.50
3	14	3	3	.....	.....$\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$	.....16, 14, 12	5.50
3A	14	3	3	.....	.....$\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$	.....16, 12, 11	5.80
3B	14	3	3	.....	.....$\frac{7}{16}$, $\frac{1}{2}$, $\frac{5}{8}$	.....14, 12, 11	5.90
3C	14	4	4	.....	.....$\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{5}{8}$	.....16, 14, 12, 11	7.15
3D	14	6	6	.....	.....$\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{5}{8}$	20, 18, 16, 14, 12, 11	9.60
4A	19	3	3	.....	.....$\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$	.....12, 11, 10	6.90
4B	19	7	7	.....	.....$\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$	20,18,16,14,12,11,10	13.50
7A	27	3	3	.....	.....$\frac{3}{4}$, $\frac{7}{8}$, 1	.....10, 9, 8	10.00
7B	27	9	9	.....	.....$\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1	20, 18, 16, 14, 12, 11, 10, 9, 8	21.00
7C	27	7	7	.....	.....$\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1	16, 14, 12, 11, 10, 9, 8	18.00
7D	27	5	5	.....	.....$\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1	.....12, 11, 10, 9, 8	13.50

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LITTLE GIANT SCREW PLATES.

FIG. 2418.

FIG. 2419.

Number.	Length of Stock, Inches.	Diameter Will Cut, Inches.	Number of Threads to the Inch.	Price, Per Set.
A 1	.....	⅛, 5/32, 3/16, 7/32, ¼	.....	6.50
A 2	.....	7/64, ⅛, 9/64, 5/32, 11/64, 3/16, 13/64, ¼	.....	8.00
A 3	.....	7/64, ⅛, 9/64, 5/32, 11/64, 3/16, 13/64, 7/32, 15/64, ¼	.....	10.50
1	14½	¼, 5/16, ⅜, 7/16, ½	20, 18, 16, 14, 12	12.00
2	23	¼, ⅜, ½, ⅝, ¾	20, 16, 12, 11, 10	13.50
3	26	⅜, ½, ⅝, ¾, 1	11, 10, 9, 8	15.00
4	26	⅜, ½, ⅝, ¾, 1	12, 11, 10, 9, 8	17.50
5	23	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾	20, 18, 16, 14, 12, 11, 10	16.00
5½	23	¼, 5/16, ⅜, 7/16, ½, 5/8, ¾	20, 18, 16, 14, 12, 12, 11, 10	18.50
6	26	⅜, 7/16, ½, ⅝, ¾, 1	16, 14, 12, 11, 10, 9, 8	22.00
*7	26	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾, 1	20, 18, 16, 14, 12, 11, 10, 9, 8	25.50
8	14½, 26	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾	20, 18, 16, 14, 12, 11, 10	18.00
*9	14½, 29	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾, 1	20, 18, 16, 14, 12, 11, 10, 9, 8	27.50
20	40	⅝, ¾, ⅞, 1, 1⅛, 1¼	11, 10, 9, 8, 7, 7	35.00
25	52	⅞, 1, 1⅛, 1¼, 1⅜, 1½	9, 8, 7, 7, 6, 6	45.00
30	52	1⅛, 1¼, 1⅜, 1½	7, 7, 6, 6	37.50
*40	23, 40	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾, ⅞, 1, 1⅛, 1¼	20,18,16, 14, 12, 11, 10, 9, 8, 7, 7	40.00
*50	26, 52	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾, ⅞,1,1⅛,1¼,1⅜,1½	20,18,16,14,12,11,10,9,8,7, 7, 6, 6	60.00
†61	.....	¼, 5/16, ⅜, 7/16, ½	20, 18, 16, 14, 12	12.00
†62	.....	¼, ⅜, ½, ⅝, ¾	20, 16, 12, 11, 10	15.50
†65	.....	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾	20, 18, 16, 14, 12, 11, 10	18.00
†65½	.....	¼, 5/16, ⅜, 7/16, ½, 5/8, ¾	20, 18, 16, 14, 12, 12, 11, 10	20.50
†66	.....	⅜, 7/16, ½, ⅝, ¾, 1	16, 14, 12, 11, 10, 9, 8	24.00
*†67	.....	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾, 1	20, 18, 16, 14, 12, 11, 10, 9, 8	29.50
†640	.....	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾, ⅞, 1, 1⅛, 1¼	20,18,16, 14, 12, 11, 10, 9, 8, 7, 7	47.00
*†650	.....	¼, 5/16, ⅜, 7/16, ½, 9/16, ⅝, ¾, ⅞,1,1⅛,1¼,1⅜,1½	20,18,16,14,12,11,10,9,8,7, 7, 6, 6	67.00
‡101	.....	¼, 5/16, ⅜, 7/16, ½	.....	15.50
‡102	.....	¼, ⅜, ½, ⅝, ¾	.....	18.00
‡103	.....	¼, ⅜, ½, ⅝, ¾, 1	.....	22.00
‡104	.....	½, ⅝, ¾, ⅞, 1	.....	25.00
‡105	.....	¼, 5/16, ⅜, 7/16, ½, 5/8, ¾	.....	22.00
‡106	.....	⅜, 7/16, ½, ⅝, ¾, ⅞, 1	.....	31.25
*‡107	.....	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾, ⅞, 1	.....	36.00
‡108	.....	¼, 5/16, ⅜, 7/16, ½, 5/8, ¾	.....	24.00
*‡109	.....	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾, ⅞, 1	.....	38.00
*‡140	.....	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾, ⅞, 1, 1⅛, 1¼	.....	55.00
*‡150	.....	¼, 5/16, ⅜, 7/16, ½, 9/16, ⅝, ¾, ⅞,1,1⅛,1¼,1⅜,1½	.....	84.00

* With two adjustable Tap Wrenches. † Full Stocked Numbers. ‡ Machinist's Sets with Taper, Plug and Bottoming Taps.

All Screw Plates have Adjustable Tap Wrench.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 907

LITTLE GIANT FULL STOCKED SCREW PLATES.

Price of Parts.

Size, Inches.	Price, Dies, Each.	Price, Guides, Each.	Price, Stocks, Each.	Price, Taps, Each.	Price of Tap, Die, Guide, and Stock.	Size, Inches.	Price, Dies, Each.	Price, Guides, Each.	Price, Stocks, Each.	Price, Taps, Each.	Price of Tap, Die, Guide, and Stock.
3/16	1.00	.20	.50	.35	2.05	3/4	2.00	.20	.75	1.20	4.15
1/4	1.00	.20	.50	.45	2.15	13/16	2.00	.20	1.00	1.40	4.60
5/16	1.00	.20	.50	.50	2.20	7/8	2.75	.20	1.00	1.60	5.55
3/8	1.25	.20	.50	.55	2.50	15/16	2.75	.20	1.00	1.80	5.75
7/16	1.25	.20	.75	.60	2.80	1	2.75	.20	1.00	2.00	5.95
1/2	1.50	.20	.75	.70	3.15	1 1/8	4.00	.50	1.75	2.25	8.50
9/16	1.50	.20	.75	.80	3.25	1 1/4	4.00	.50	1.75	2.60	8.85
5/8	1.75	.20	.75	.90	3.60	1 3/8	5.00	.50	2.25	3.00	10.75
11/16	1.75	.20	.75	1.05	3.75	1 1/2	5.00	.50	2.25	3.50	11.25

Left-Hand Threads are furnished at above list prices. Particular attention is called to the guide; this, being removable, can be replaced at a very low cost, and save the expense of purchasing an entire new stock.

Harts' Duplex Die Stocks.

FIG. 2420.

Number.	Number of Dies, Per Set.	Number of Taps, Per Set.	Diameter Will Cut, Inches.	Number of Threads to the Inch.	Price, Per Set.	Price, Extra Dies, 4 Pieces, Per Set.
A A	6	6	3/16, 1/4, 5/16, 3/8, 7/16, 1/2	24, 20, 18, 16, 14, 12	15.00	1.00
A	7	7	1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8	20, 18, 16, 14, 12, 11, 10	20.00	1.25
B	9	9	1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 7/8, 1	20, 18, 16, 14, 12, 11, 10, 9, 8	30.00	1.50
B 2	5	5	1/2, 9/16, 5/8, 7/8, 1	12, 11, 10, 9, 8	22.00	1.50
B 3	10	10	3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4, 7/8, 1	24, 20, 18, 16, 14, 12, 11, 10, 9, 8	35.00	.....
B B	6	7	1/2, 5/8, 3/4, 7/8, 1, 1 1/8, 1 1/4	12, 11, 10, 9, 8, 7, 7	37.00	1.75
B B 2	11	11	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4, 7/8, 1, 1 1/8, 1 1/4	20, 18, 16, 14, 12, 11, 10, 9, 8, 7	48.00	.....
C	7	9	1/2, 5/8, 3/4, 7/8, 1, 1 1/8, 1 1/4, 1 3/8, 1 1/2	12, 11, 10, 9, 8, 7, 7, 6, 6	45.00	1.75
C 2	5	7	3/4, 7/8, 1, 1 1/8, 1 1/4, 1 3/8, 1 1/2	10, 9, 8, 7, 7, 6, 6	40.00	1.75
C 3	13	13	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4, 7/8, 1, 1 1/8, 1 1/4, 1 3/8, 1 1/2	20, 18, 16, 14, 12, 11, 10, 9, 8, 7, 7, 6, 6	57.00	.....

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GREEN RIVER SCREW PLATES.

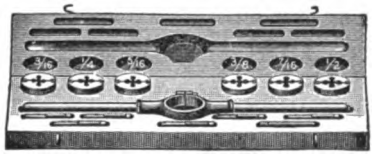

FIG. 2421.

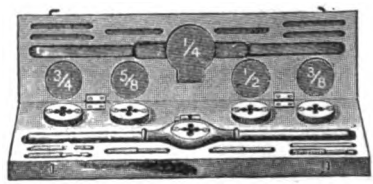

FIG. 2422.

Number.	Diameter Will Cut, Inches.	Price, Per Set.
101	3/16, 1/4, 5/16, 3/8, 7/16, 1/2	11.00
* 1102	3/16, 1/4, 5/16, 3/8, 7/16, 1/2	13.15
123	1/4, 3/8, 1/2, 5/8, 3/4	10.25
* 1124	1/4, 3/8, 1/2, 5/8, 3/4	13.00
103	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4	13.00
125	1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4	15.25
* 1104	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4	15.75
* 1125	1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4	18.00
† 132	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4	14.50
*† 1132	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4	17.25
105	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4	15.25
* 1106	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4	18.00
107	1/2, 5/8, 3/4, 7/8, 1	17.00

Number.	Diameter Will Cut, Inches.	Price, Per Set.
* 1108	1/2, 5/8, 3/4, 7/8, 1	20.50
109	3/8, 7/16, 1/2, 5/8, 3/4, 7/8, 1	20.00
* 1110	3/8, 7/16, 1/2, 5/8, 3/4, 7/8, 1	23.50
111	3/8, 7/16, 1/2, 5/8, 3/4, 7/8, 1	23.00
* 1112	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4, 7/8, 1	28.65
113	1/2, 5/8, 3/4, 7/8, 1, 1 1/8, 1 1/4	26.00
114	3/8, 7/16, 1/2, 5/8, 3/4, 7/8, 1, 1 1/8, 1 1/4	30.00
115	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4, 7/8, 1, 1 1/8, 1 1/4	34.00
116	7/8, 1, 1 1/8, 1 1/4, 1 3/8, 1 1/2	40.00
† 117	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4, 7/8, 1	25.00
*† 1118	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4, 7/8, 1	30.65
† 119	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4, 7/8, 1, 1 1/8, 1 1/4	36.00
† 120	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4, 7/8, 1, 1 1/8, 1 1/4, 1 3/8, 1 1/2	53.00

* With Adjustable Tap Wrench. * †With Adjustable Tap Wrench and two Stocks.
† With two Stocks. Number 1118 has two Tap Wrenches and two Stocks.

☞ Prices given above include Dies, Taps and Guides.

Dies and Parts for Above Stocks.

Size, Inches.	Price, Taps, Dies and Guides.	PRICE, DIES, EACH. 2 7/16 Inches, Outside Diameter.	2 3/4 Inches, Outside Diameter.	3 7/16 Inches, Outside Diameter.	Price, Taps, Each.	Price, Guides, Each.	Regular Threads, Per Inch.	Other Threads at Regular Prices, Per Inch.
3/16	1.68	1.25	.....	.....	.35	.25	24	.....
1/4	1.73	1.25	1.25	.....	.45	.25	20	16, 18
5/16	1.75	1.25	1.25	.....	.50	.25	18	16
3/8	2.03	1.50	1.50	.....	.55	.25	16	14, 18
7/16	2.05	1.50	1.50	.....	.60	.25	14	12, 16
1/2	2.10	1.50	1.50	.....	.70	.25	12	13, 14
9/16	2.25	1.60	1.60	.....	.80	.25	12	14
5/8	2.45	1.75	1.75	.....	.90	.25	11	10, 12
11/16	2.68	1.90	1.90	.....	1.05	.25	11	12
3/4	2.85	2.00	2.00	.....	1.20	.25	10	12
13/16	3.20	.....	2.25	.....	1.40	.25	10	.....
7/8	3.55	.....	2.50	2.50	1.60	.25	9	10
15/16	3.90	.....	2.75	2.75	1.80	.25	9	.....
1	4.25	.....	3.00	3.00	2.00	.25	8	.....
1 1/8	4.88	.....	3.50	3.50	2.25	.25	7	8
1 1/4	5.55	.....	4.00	4.00	2.60	.25	7	.....
1 3/8	6.25	.....	.....	4.50	3.00	.25	6	.....
1 1/2	7.00	.....	.....	5.00	3.50	.25	6	.....

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THE W. M. PATTISON SUPPLY CO. 909 CLEVELAND

SMITHS' PATENT ADJUSTABLE DIES.

FIG. 2423.

SIZE OF DIE, INCHES.		Size of Screw Guage, Number.	Standard Number of V Threads to Inch.	Threads also Furnished.	Price, Each.
Diameter.	Thickness.				
1	3/8	4	36	.....30, 32, 40, 42, 44, 48	.75
1	3/8	5	36	.....30, 32, 40, 44, 48	.75
1	3/8	6	32	.....30, 36, 38, 40, 44, 48	.75
1	3/8	7	32	.....24, 28, 30, 36, 40	.75
1	3/8	8	32	.....24, 30, 36, 40, 44	.75
1	3/8	9	30	.....24, 28, 32	.75
1	3/8	10	24	.....20, 22, 28, 30, 32, 36	.75
1	3/8	11	.....	.....22, 24, 28, 30	.75
1	3/8	12	24	.....20, 22, 26, 28, 30, 32, 34, 36	.75
1	3/8	13	.....	.....20, 22, 24, 32	.75
1	3/8	14	20	.....16, 18, 22, 24, 26	.75
1	3/8	15	.....	.....18, 20, 22, 24	.75
1	3/8	16	18	.....16, 20, 22, 24, 26	.75
1	3/8	17	.....	.....16, 18, 20	.75
1	3/8	18	18	.....16, 20, 22, 24, 26	.75
1	3/8	19	.....	.....16, 18, 20, 22, 24	.75
1	3/8	20	16	.....18, 20, 22, 24	.75
1	3/8	22	16	18	.75
1	3/8	24	16	.....14, 18, 20, 22, 24	.75
1	3/8	1/8 Inch.	40	.....27, 32, 36, 44	.75
1	3/8	9/64 Inch.	40	.....30, 32, 36	.75
1	3/8	5/32 Inch.	32	.....30, 36, 40	.75
1	3/8	11/64 Inch.	32	.....36, 40	.75
1	3/8	3/16 Inch.	24	.....22, 28, 32, 36	.75
1	3/8	13/64 Inch.	24	.....22, 28, 32, 36	.75
1	3/8	7/32 Inch.	24	.....28, 30, 32, 36	.75
1	3/8	15/64 Inch.	24	.....28, 32, 36	.75
1	3/8	1/4 Inch.	20	.....16, 18, 22, 24, 26, 27, 28, 30, 32	.75
1	3/8	5/16 Inch.	18	.....16, 20, 22, 24, 26, 27, 28, 30, 32	.75
1	3/8	3/8 Inch.	16	.....14, 18, 20, 22, 24, 26, 27, 28, 30, 32	.75
1	3/8	7/16 Inch.	14	.....12, 16, 18, 20, 22, 24, 26, 27	.75

All orders for Round Adjustable Dies one inch in diameter will be filled with this style of Die, unless something different is specified.

These Dies are made with V standard number of threads to the inch, unless otherwise specified on the order.

Sizes and threads not given in above list will be considered special. Prices on application.

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SMITHS' PATENT ADJUSTABLE DIES.

FIG. 2424.

SIZE OF DIE, INCHES. Diameter.	SIZE OF DIE, INCHES. Thickness.	Cutting Size, Inches.	Standard No. of V Threads to Inch.	Threads Also Furnished.	Price, Each.
1 5/16	7/16	3/8	24	22, 27, 28, 32, 36	1.00
1 5/16	7/16	11/32	24	22, 32, 36	1.00
1 5/16	7/16	7/16	24	28, 30, 32, 36	1.00
1 5/16	7/16	31/64	24	28, 32, 36	1.00
1 5/16	7/16	1/2	20	16, 18, 22, 24, 26, 27, 28, 30, 32	1.00
1 5/16	7/16	5/16	18	16, 20, 22, 24, 26, 27, 28, 30, 32	1.00
1 5/16	7/16	3/8	16	14, 18, 20, 22, 24, 26, 27, 28, 30, 32	1.00
1 5/16	7/16	7/16	14	12, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32	1.00
1 5/16	7/16	1/2	12	13, 14, 20, 22, 24, 26, 27, 28, 30, 32	1.00
1 9/16	9/16	1/2	20	16, 18, 22, 24, 26, 27, 28, 30, 32	1.25
1 9/16	9/16	9/16	18	16, 20, 22, 24, 26, 27, 28, 30, 32	1.25
1 9/16	9/16	5/8	16	14, 18, 20, 22, 24, 26, 27, 28, 30, 32	1.25
1 9/16	9/16	11/16	14	12, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32	1.25
1 9/16	9/16	3/4	12	13, 14, 20, 22, 24, 26, 27, 28, 30, 32	1.25
1 9/16	9/16	9/16	12	14, 27	1.25
1 9/16	9/16	5/8	11	10, 12, 14, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32	1.25
2 1/4	3/4	1/2	20	16, 18, 22, 24, 26, 27, 28, 30, 32	1.50
2 1/4	3/4	9/16	18	16, 20, 22, 24, 26, 27, 28, 30, 32	1.50
2 1/4	3/4	5/8	16	14, 18, 20, 22, 24, 26, 27, 28, 30, 32	1.50
2 1/4	3/4	11/16	14	12, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32	1.50
2 1/4	3/4	3/4	12	13, 14, 20, 22, 24, 26, 27, 28, 30, 32	1.50
2 1/4	3/4	9/16	12	14, 27	1.75
2 1/4	3/4	5/8	11	10, 12, 14, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32	1.75
2 1/4	3/4	11/16	11	12	2.00
2 1/4	3/4	3/4	10	12, 20, 22, 24, 26, 27, 28	2.00
2 1/4	3/4	13/16	10		2.25
2 1/4	3/4	7/8	9	10, 12, 20, 22, 24, 26, 27	2.25
2 1/4	3/4	15/16	9	10	2.50
2 1/4	3/4	1	8	12, 20, 22, 24, 26, 27	2.50

All orders for Dies, one and five-sixteenths one and nine-sixteenths and two and one-quarter inches in diameter, will be filled with this style of Die, unless something different is specified.

These Dies are sent with V standard number of threads to the inch, unless otherwise specified on the order.

Sizes and threads not given in above list will be considered special. Prices on application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 911

LITTLE GIANT ADJUSTABLE DIES AND COLLETS.

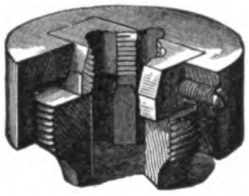

FIG. 2425.

Diameter, 1¼ Inches.

Size of Gauge, Number.	Regular Threads to the Inch.	Threads Also Furnished.	Price, Dies, Each.	Price, Taps, Each.
2	56	48, 64	.60	.35
3	48	40 56	.60	.35
4	36	32, 40, 42	.60	.35
5	36	30, 32, 40	.60	.35
6	32	30, 36, 38, 40	.60	.35
7	32	28, 30	.60	.35
8	32	24, 30	.60	.35
9	30	24, 28, 32	.60	.35
10	24	28, 30, 32	.60	.35
11	24	28, 30	.60	.35
12	24	20, 22, 28	.60	.35
13	22	24	.60	.38
14	20	22, 24	.60	.38
15	20	18, 22, 24	.60	.38
16	18	16, 20, 24	.60	.38
1/16 inch	60	56	.60	.35
5/64 inch	56	60	.60	.35
3/32 inch	56	48, 52, 54, 60	.60	.35
7/64 inch	56	32, 36, 40, 48	.60	.35
1/8 inch	40	32, 36, 42	.60	.35
9/64 inch	40	30, 32, 36	.60	.35
5/32 inch	32	30, 36	.60	.35
11/64 inch	24	30, 32	.60	.35
7/32 inch	24	30, 32	.60	.35
1/4 inch	20	22 24	.60	.45
17/64 inch	20	24	.60	.45
9/32 inch	20	24	.60	.45

Collets, 40 cents; Tap Wrench, 50 cents; Stocks, 70 cents.

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SPRING SCREW THREADING DIES AND HOLLOW MILLS.

DIE.

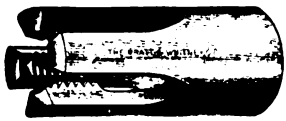

FIG. 2426.

MILL.

FIG. 2427.

Spring Screw Threading Dies.

Diameter and Pitch of Screw.	Outside Diameter of Die, Inches.	Length of Die, Inches.	Price of U. S. Standard Die.	Price of Clamp Collar.
1/8, 40; 3/16, 32; 1/4, 20	1/2	1 1/4	1.50	.50
4, 32; 4, 36; 6, 32, 8, 32				
1/4, 20; 5/16, 18; 3/8, 16	3/4	1 3/4	1.75	.60
8, 32; 10, 24; 12, 24; 14, 20; 14, 24				
3/8, 16; 7/16, 14; 1/2, 13	1	2	2.00	.70
5/8, 11; 11/16, 11; 3/4, 10	1 3/16	2 1/4	2.00	.80
3/8, 16; 7/16, 14; 1/2, 13; 9/16, 12; 5/8, 11; 3/4, 10	1 1/4	2 1/4	2.00	.80
1/2, 13; 9/16, 12; 5/8, 11; 3/4, 10	1 5/16	2 1/2	2.40	1.00
5/8, 11; 3/4, 10; 7/8, 9; 1, 8	1 5/8	2 1/2	2.75	1.20
3/4, 10; 7/8, 9; 1, 8; 1 1/8, 7; 1 1/4, 7	2	3	3.50	1.50
1, 8; 1 1/8, 7; 1 1/4, 7; 1 3/8, 6; 1 1/2, 6	2 1/2	3 1/2	6.00	2.50
1 3/4, 5; 1 7/8, 5; 2, 4 1/2; 2 1/8, 4 1/2	3 1/4	4	10.00	5.00

Hollow Mills.

Diameter of Cut.	Outside Diameter Inches.	Length, Inches.	Price, Each.	Price of Clamp Collar.
1/8, 3/16, 1/4	1/2	1 1/4	1.50	.50
1/4, 5/16, 3/8	3/4	1 3/4	1.75	.60
3/8, 7/16, 1/2	1	2	2.00	.70
5/8, 11/16, 3/4	1 3/16	2 1/4	2.00	.80
3/8, 7/16, 1/2, 9/16, 5/8, 3/4	1 1/4	2 1/4	2.00	.80
1/2, 9/16, 5/8, 3/4	1 5/16	2 1/2	2.40	1.00
5/8, 3/4, 7/8, 1	1 5/8	2 1/2	2.75	1.20
3/4, 7/8, 1, 1 1/8, 1 1/4	2	3	3.50	1.50
1, 1 1/8, 1 1/4, 1 3/8, 1 1/2	2 1/2	3 1/2	5.00	2.50
1 3/4, 1 7/8, 2, 2 1/8	3 1/4	4	8.00	5.00

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DIE HOLDERS AND PLATES.

THE W. M. PATTISON SUPPLY CO. CLEVELAND

LITTLE GIANT DIE HOLDER.

FIG. 2428.

LITTLE GIANT TAP, DIE AND COLLET.

FIG. 2429.

Little Giant Die Holders for Adjustable Dies.

Number	1	2	3	4	5	6
Diameter Die will hold ..... inches	$\frac{5}{8}$	$1\frac{3}{16}$	1	$1\frac{5}{16}$	$1\frac{9}{16}$	$2\frac{1}{4}$
Diameter of Shank ..... inches	$\frac{1}{2}$	$\frac{1}{2}, \frac{9}{16}, \frac{11}{16}$	$\frac{1}{2}, \frac{9}{16}, \frac{11}{16}$	$\frac{11}{16}, \frac{3}{4}, \frac{13}{16}$	$\frac{3}{4}, 1\frac{3}{16}, 1$	$1\frac{1}{16}, 1\frac{1}{8}, 1\frac{1}{4}$
Price ..... each	.50	.50	.75	1.50	2.75	4.00

Little Giant Taps, Dies and Collets.

Size ..... inches	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$
Number of Threads to the inch	24	20	18	16	14
Price, Tap, Die and Collet	1.90	1.90	1.95	2.25	2.35
Price, Dies ..... each	1.00	1.00	1.00	1.25	1.25
Price, Taps ..... each	.50	.50	.55	.60	.70
Price, Collets ..... each	.50	.50	.50	.50	.50

MANSFIELD DIE HOLDER.

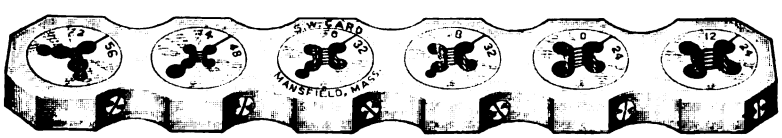

FIG. 2430.

Price, No. 1, Holding 6 Round Adjustable Dies $\frac{5}{8}$ inches in diameter ..each	2.00
Price, No. 2, Holding 6 Smiths' Adjustable Dies $1\frac{3}{16}$ inches in diameter..each	2.25

HANDY PLATE.

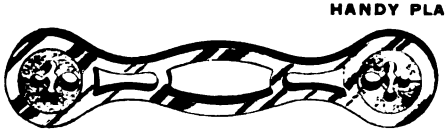

FIG. 2431.

No. 1 and 1½.

FIG. 2432.

No. 2 and 2½.

Number	1	1½	2	2½
Number of Adjustable Dies will hold...	2 Round	2 Smiths'	1 Round	1 Smiths'
Diameter of Dies ..... inches	$\frac{5}{8}$	$1\frac{3}{16}$	$\frac{5}{8}$	$1\frac{3}{16}$
Price ..... each	.75	.75	.50	.50

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CARDS' SOLID SCREW PLATE STOCKS.

HOLDING ROUND AND ADJUSTABLE DIES.

FIG. 2433.

Length.....inches	3½	5	7	10½	14	18	23	29
Outside Diameter of Die.....inches	7/16	5/8	1 3/16	1	1 5/16	1 9/16	1¾	2¼
Price.....each	.40	.40	.50	1.00	1.25	1.50	1.50	1.75

FIG. 2434.

Collets for Cards' Adjustable Dies.

Number	1	1½	2	3	4	5
Diameter..... inches	5/8	1 3/16	1	1 5/16	1 9/16	2¼
Thickness .....inches	1/4	1/4	1/4	7/16	9/16	1/4
Price.....each	.50	.50	.75	.75	.75	1.00

LITTLE GIANT STOCKS AND COLLETS.

GUIDE.

CAP.

FIG. 2435.

Stocks.

Length of Stock.....inches	7½	14½	23	26	29	40	52
For Collets, diameter....inches	1¼	2	2¾	2¾	2¾	4	4½
Price.....each	.70	1.50	2.00	2.00	2.00	6.00	8.00

Collets, Guides and Caps.

Size of Die.....inches	7/64 to ¼	¼ to ½	¼ to 1	⅝ to 1¼	1⅛ to 1½
Diameter of Collet.....inches	1¼	2	2¾	4	4½
Price, Guides.....each	.15	.20	.20	.50	.50
Price, Caps..... each	.25	.30	.30	1.00	1.00
Price.....complete	.40	.50	.50	1.50	1.50

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THE W. M. PATTISON SUPPLY CO. 915 CLEVELAND

MACHINE OR SOLID BOLT DIES.

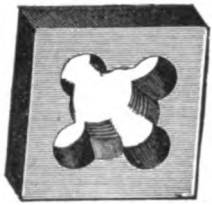

FIG. 2436.

Cutting Size, Inches.	Standard No. of Threads to the Inch.	OUTSIDE DIMENSIONS. Size of Square, Inches.	OUTSIDE DIMENSIONS. Thickness, Inches.	Price, Each.	Cutting Size, Inches.	Standard No. of Threads to the Inch.	OUTSIDE DIMENSIONS. Size of Square, Inches.	OUTSIDE DIMENSIONS. Thickness. Inches.	Price, Each.
1/4	20	2 1/2	1/2	1.80	3/4	10	3	3/4	2.75
5/16	18	2 1/2	1/2	1.80	13/16	10	3	3/4	2.80
3/8	16	2 1/2	1/2	1.80	7/8	9	3	3/4	2.90
7/16	14	2 1/2	1/2	1.80	15/16	9	3	3/4	3.05
1/2	12	2 1/2	1/2	1.80	1	8	3	1	3.40
9/16	12	2 1/2	1/2	1.90	1 1/8	7	3	1	3.60
5/8	11	2 1/2	1/2	2.00	1 1/4	7	3	1	3.70
11/16	11	2 1/2	1/2	2.15	1 3/8	6	3	1	3.80
3/4	10	2 1/2	1/2	2.25	1/4	20	4	3/4	2.50
13/16	10	2 1/2	1/2	2.30	5/16	18	4	3/4	2.50
7/8	9	2 1/2	1/2	2.40	3/8	16	4	3/4	2.50
15/16	9	2 1/2	3/4	2.55	7/16	14	4	3/4	2.50
1	8	2 1/2	1	2.70	1/2	12	4	3/4	2.80
1 1/8	7	2 1/2	1	3.00	9/16	12	4	3/4	2.90
1 1/4	7	2 1/2	1	3.30	5/8	11	4	3/4	3.00
1 3/8	6	2 1/2	1	3.60	11/16	11	4	3/4	3.15
1 1/2	6	3	1	3.90	3/4	10	4	3/4	3.25
1 5/8	5	3	1	4.20	13/16	10	4	3/4	3.30
1 3/4	5	3	1 1/4	5.40	7/8	9	4	3/4	3.40
1 7/8	4 1/2	3 1/2	1 1/2	6.50	15/16	9	4	3/4	3.55
2	4 1/2	3 1/2	2	7.50	1	8	4	1	4.20
1/4	20	3	3/4	2.30	1 1/8	7	4	1	4.50
5/16	18	3	3/4	2.30	1 1/4	7	4	1	4.80
3/8	16	3	3/4	2.30	1 3/8	6	4	1	5.00
7/16	14	3	3/4	2.30	1 1/2	6	4	1	5.25
1/2	12	3	3/4	2.30	1 5/8	5	4	1	5.50
9/16	12	3	3/4	2.40	1 3/4	5	4	1 1/4	6.15
5/8	11	3	3/4	2.50	1 7/8	4 1/2	4	1 1/2	7.50
11/16	11	3	3/4	2.65	2	4 1/2	4	2	8.00

All solid Bolt Dies will be sent even size, unless over size is specified.

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LITTLE GIANT HAND AND POWER BOLT CUTTERS AND NUT TAPPERS.

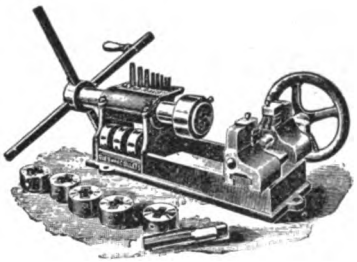

FIG. 2437.

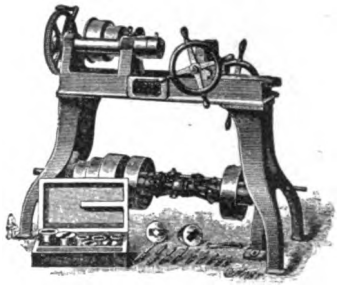

FIG. 2438.

Number.	Diameter Will Cut, Inches.	Weight Pounds	Price, Complete, Each.	Price, Machine Only, Each
A	¼, 5/16, ⅜, 7/16, ½, 5/8, ¾	.....	30.00	.....
B	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾, 1	.....	40.00	.....
6	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾	150	50.00	25.00
7	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾, 1	200	70.00	30.00
* 6	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾	185	57.00	.....
* 7	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾, 1	235	77.00	.....
8	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾, 1	.....	90.00	50.00
8½	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾, 1, 1¼	350	108.00	.....
9	⅜, 7/16, ½, ⅝, ¾, 1, 1⅛, 1¼, 1⅜, 1½	400	140.00	65.00
**10	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾, ⅞, 1	.....	115.00	65.00
**10½	¼, 5/16, ⅜, 7/16, ½, ⅝, ¾, 1, 1⅛, 1¼	600	133.90	.....
**12	⅜, 7/16, ½, ⅝, ¾, ⅞, 1, 1⅛, 1¼, 1⅜, 1½	850	165.00	80.00

All machines have Taps, Dies, Collets, Tap Chuck, Wrenches and Handles.

Number 7 on base has improved clutch on spindle for quick return.

* Numbers 6 and 7 mounted on legs; A, B, 6 and 7 on base.

**Numbers 10, 10½ and 12 are Power Machines, all other are Hand Machines.

Numbers 8 and 8½ have three changes of speed, Improved Tail Block Jaws and Clutch on Spindle for throwing out gear. Balance Wheel extra 5.00.

Number 9 has four changes of speed, Clutch on Spindle, Improved Tail Block Jaws and Hollow Spindle. Balance Wheel extra 5.00.

Numbers 10 and 10½ has plain Countershaft and Oil Pump. Speed of Countershaft, 250 revolutions per minute. Size of Driving Pulleys, 3½ x 10 inches. Friction Clutch extra 10.00.

Number 12 has Plain Countershaft and Oil Pump. Speed of Countershaft 200 revolutions per minute. Three Step Cone Pulleys with steps 3½x8, 10, 12 inches in diameter. Larger Gear 22 inches, small Gear 3 inches; size of Driving Pulleys on Counter-shaft, 3½x12 inches.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

DRILL CHUCKS.

TRUMP.

FIG. 2439.

GOODELL.

FIG. 2440.

Trump.

Number	1	2	3
Diameter and Length of Shank.....inches	$\frac{5}{16}$ x 2	$\frac{9}{16}$ x $2\frac{3}{4}$	$\frac{15}{16}$ x 6
For Drills..... inches	$\frac{1}{8}$ and under	$\frac{1}{4}$ and under	$\frac{3}{8}$ and under
Price..... ..... each	1.50	2.50	4.50

Goodell.

For Drills, number and inches.....	14 to $\frac{5}{32}$	15 to $\frac{1}{4}$	$15\frac{1}{2}$ to $\frac{3}{8}$	16 to $\frac{1}{2}$
Price, $\frac{1}{2}$ or $\frac{11}{16}$ inch Shank.....each	1.50	2.00	3.00	4.00
Price, Number 1 or 2 Morse Taper Shank.....each	2.00	2.50	3.50	4.50

GOODELL, FOR SQUARE SHANKS.

FIG. 2441.

GRAHAM, FOR GROOVED SHANKS.

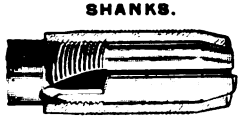

FIG. 2442.

SECTIONAL.

Goodell, for Square Shank.

Price, with $\frac{1}{2}$ or $\frac{11}{16}$ inch Spindles .....each	2.00

Graham, for Grooved Shanks.

Number	0	1	$1\frac{1}{2}$	2
Size of Chuck, Diameter and Length....inches	$\frac{3}{4}$ x $1\frac{3}{4}$	$1\frac{1}{4}$ x $2\frac{3}{4}$	$1\frac{3}{4}$ x 4	$2\frac{1}{4}$ x 4
Diameter and Length of Shank..inches	$\frac{5}{8}$ x $2\frac{1}{2}$	1 x 4	$1\frac{1}{2}$ x 5	$1\frac{5}{8}$ x 5
For Drills.....inches	$\frac{3}{32}$ to $\frac{1}{4}$	$\frac{1}{4}$ to $\frac{3}{4}$	$\frac{3}{4}$ to $1\frac{1}{16}$	$\frac{3}{4}$ to $2\frac{1}{4}$
Price.....each	4.50	6.00	10.50	12.00

FIG. 2443.

Reducers, for Graham Chucks.

Price, No. 120 to be fitted in No. 1, Chuck or 221 Reducer making it take Drills as small as $\frac{3}{32}$ inch, No. 42 Wire Gauge.....each	1.50
Price, No. 221 to be fitted in No. $1\frac{1}{2}$ and 2 Chucks making them take Drills as small as $\frac{1}{4}$ inch.....	1.50

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

DRILL CHUCKS.

CZAR.

FIG. 2444.

STANDARD.

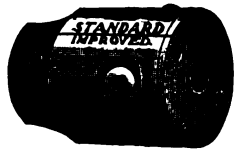

FIG. 2445.

NATIONAL.

FIG. 2446.

Czar.

Number	1	2	3
For Drills.....inches	0 to $\frac{3}{16}$	0 to $\frac{5}{16}$	0 to $\frac{1}{2}$
Price .....each	5.50	5.50	9.00

Standard.

Number	00	0	1	2	3
Diameter and Length..inches	$1\frac{3}{8}$x$2\frac{3}{32}$	$1\frac{1}{16}$x$2\frac{5}{32}$	$2\frac{3}{16}$x$2\frac{1}{8}$	$2\frac{1}{8}$x$3\frac{3}{8}$	$3\frac{7}{16}$x$4\frac{1}{4}$
For Drills .....inches	0 to $\frac{1}{4}$	0 to $\frac{3}{8}$	0 to $\frac{1}{2}$	0 to $\frac{3}{4}$	0 to 1
Price .....each	6.00	6.50	7.00	8.00	10.00

National.

Number	1	2	3	4	5	6	7
For Drills.....inches	0 to $\frac{1}{4}$	0 to $\frac{3}{8}$	0 to $\frac{1}{2}$	0 to $\frac{3}{4}$	0 to 1	0 to $1\frac{1}{2}$	0 to 2
Price, Unpolished .....each	5.00	5.50	6.50	7.50	10.00	16.00	18.00
Price, Polished..... .....each	6.00	7.00	8.00	9.00	11.00	18.00	20.00

CUSHMAN.

FIG. 2447.

ONEIDA.

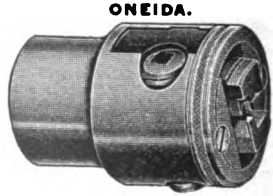

FIG. 2448.

Cushman.

Number	51	52
Diameter	2	$2\frac{1}{2}$
For Drills .....inches	0 to $\frac{1}{2}$	$\frac{1}{16}$ to $\frac{5}{8}$
Price .....each	6.50	8.00

Oneida.

Number	0	1
Diameter and Length.....inches	$1\frac{1}{16}$x$2\frac{1}{8}$	$2\frac{1}{4}$x3
For Drills.....inches	0 to $\frac{3}{32}$	0 to $\frac{1}{2}$
Price .....each	7.00	8.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

DRILL CHUCKS.

LITTLE GIANT, IMPROVED.

STRAIGHT BODY.

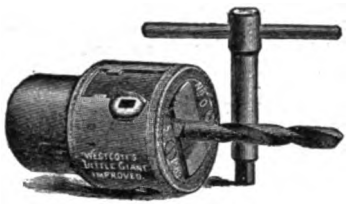

FIG. 2449.

Nos. 00 to 2½.

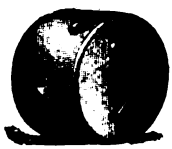

FIG. 2460.

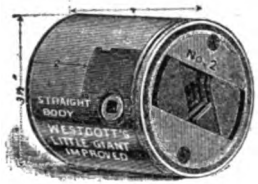

FIG. 2461.

Nos. 3 and 4.

Number	00	0	1	2	2½	3	4
Diameter.....inches	1 7/8	2½	3	3½	4	6	6½
For Drills.....inches	0 to ¼	0 to ½	0 to ¾	0 to 1	Ex. Strong, 0 to 1	0 to 1½	0 to 2
Price.....each	7.00	8.00	9.00	10.00	11.00	18.00	20.00

LITTLE GIANT, AUXILLIARY SCREW.

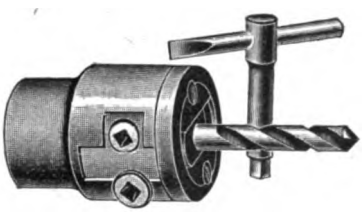

FIG. 2452.

Nos. ½ to 1.

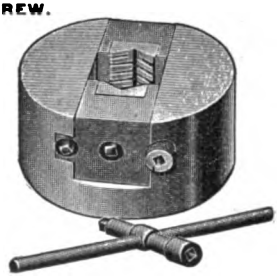

FIG. 2453.

Nos. 1½ to 4.

Size, Number.....inches	½	¾	1	1½	2	2⅝	3	3⅝	4
Diameter.....inches	2¼	3	3½	6	6½	7¼	9	11	13¼
For Drills.....inches	0 to ½	0 to ¾	0 to 1	¼ to 1¼	⅜ to 2	½ to 2⅝	⅝ to 3	¾ to 3⅝	⅞ to 4
Recess for Face Plate..inches	.....	.....	.....	5/8	5 9/16	6½	8	10	10
Price.....each	8.00	9.00	10.00	18.00	20.00	30.00	35.00	50.00	60.00

LITTLE GIANT, DOUBLE GRIP.

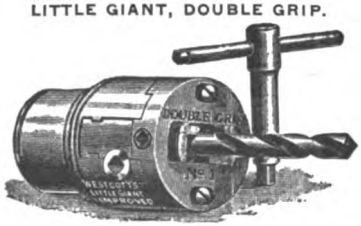

FIG. 2454.

Number	0	1	2	2½	3	4
Diameter.....inches	2½	3	3½	4	6	6½
For Drills.....inches	0 to ½	0 to ¾	0 to 1	Ex. Strong, 0 to 1	0 to 1½	0 to 2
Price.....each	8.00	9.00	10.00	11.00	18.00	20.00

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THE W. M. PATTISON SUPPLY CO. 920 CLEVELAND

CENTER ARBORS, FOR DRILL CHUCKS.

PLAIN ARBOR.

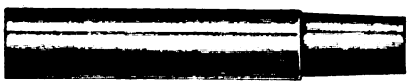

FIG. 2455

ARBOR FOR BLACKSMITH'S DRILL PRESS.

FIG. 2456.

Plain Arbors with Blank Shanks, 4½ Inches Long; 1 Inch in Diameter.

Size, Fitted to Drill Chucks.....inches	¼	⅜	½	¾	1
Price.....each	.80	.80	.80	1.00	1.00

Arbors for Blacksmith's Drill Press; ½, ⅝ and 41-64 Inches in Diameter.

Size, Fitted to Drill Chucks.....inches	¼	⅜	½	¾	1
Price.....each	1.25	1.25	1.25	1.50	1.50

ARBOR FOR BIT-BRACE.

FIG. 2457.

ARBOR WITH NUT.

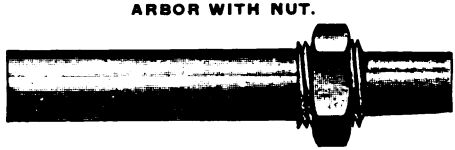

FIG. 2458.

Arbors for Bit-Brace.

Size, Fitted to Drill Chucks.....inches	¼	⅜	½	¾	1
Price.....each	1.25	1.25	1.25	1.50	1.50

Arbors with Nut; Shanks 4½ Inches Long, 1 Inch in Diameter.

Size, Fitted to Drill Chucks.....inches	¼	⅜	½	¾	1
Price.....each	1.50	1.50	1.50	2.00	2.00

TAPER ARBOR.

FIG. 2459.

Taper Arbors.

Number of Morse Taper Shank.....	1	2	3	4	5
Price.....each	1.50	1.50	1.75	1.75	2.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND O. 921

LATHE CHUCKS.

CUSHMAN INDEPENDENT.

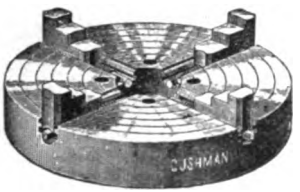

FIG. 2460.

ONEIDA NATIONAL INDEPENDENT.

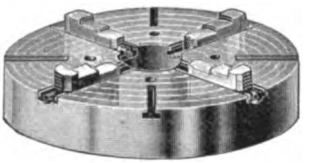

FIG. 2461.

Chushman Independent Four Jaw Chucks.

Nominal Size and Diameter of Body, Inches.	Size of Hole, Inches.	Recess for Flange, Inches.	Weight, Pounds.	Price, Each.	Nominal Size and Diameter of Body, Inches.	Size of Hole, Inches.	Recess for Flange, Inches.	Weight, Pounds.	Price, Each.
4½	1	4 1/16	7	14.00	18	4	9½	140	44.00
6	1 9/16	5	13	18.00	20	4	9½	190	50.00
8	1	4	28	22.00	21	4¼	9½	210	55.00
9	1	4	32	24.00	22	5	11	225	57.00
10	2	5	36	26.00	24	5	11	250	65.00
12	2	6 1/16	62	30.00	26	5	12	300	80.00
14	3	6 1/16	85	34.00	28	5	13	350	100.00
15	3	7 1/16	100	35.00	30	5	15	425	120.00
16	3	7 1/16	115	38.00	.....	.....	.....	.....	.....

Oneida National Independent Four Jaw Chucks.

Size, Inches.	Size of Hole, Inches.	Face Plate Inches.	Weight, Pounds.	Price, Each.	Size, Inches.	Size of Hole, Inches.	Face Plate Inches.	Weight, Pounds.	Price Each.
4	1	2 3/16	5	14.00	16	3 3/16	7 5/16	108	38.00
6	1 1/16	3 1/16	15	18.00	18	3 1/2	9	137	44.00
8	1 9/16	5	28	22.00	20	4	9	165	50.00
9	2	5	30	23.00	22	4 3/4	9	203	57.00
10	2 3/16	5	35	26.00	24	5	12	272	65.00
12	2 1/2	6 1/16	65	30.00	30	5 1/2	15	400	120.00
14	3	7 5/16	78	34.00	36	7 1/2	18	540	200.00

NATIONAL IMPROVED INDEPENDENT FOUR JAW CHUCKS.

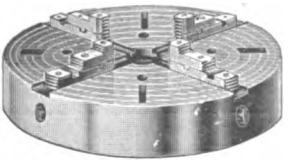

FIG. 2462.

Size...inches	6	9	12	15	18	21	24	26	30	36	42
Price ...each	18.00	23.00	30.00	35.00	44.00	55.00	65.00	80.00	120.00	190.00	280.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

LATHE CHUCKS.

NATIONAL IMPROVED UNIVERSAL.

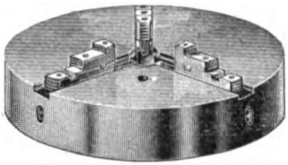

FIG. 2463.

NATIONAL IMPROVED COMBINATION.

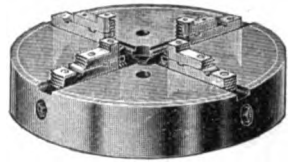

FIG. 2464.

National Improved Universal and Combination Lathe Chucks.

Size, Inches.	Diameter of Body, Inches.	Size of Hole, Inches.	Face Plate, Recess, Inches.	Weight 3 Jaw, Pounds.	Weight 4 Jaw, Pounds.	Price. 3 Jaw. Each.	Price, 4 Jaw, Each.
4	4¾	1	2¾	6	7	22.00	26.00
6	7¼	1⅛	3½	17	20	26.00	32.00
9	10¼	1½	5	32	32	34.00	42.00
12	12⅜	1⅞	5¾	58	61	44.00	56.00
15	15¾	2	7⅝	70	75	52.00	64.00
18	19	2½	9	112	122	62.00	75.00
21	22	2⅞	9	132	141	80.00	95.00
24	25	2¾	12	155	175	100.00	120.00
30	30	3½	15	325	335	170.00	200.00
36	36	4	18	520	530	230.00	285.00
42	42	4½	18	650	675	270.00	325.00

NATIONAL CUTTING OFF CHUCK.

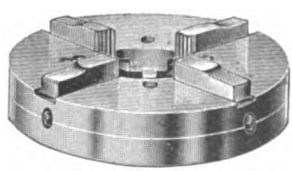

FIG. 2465.

NATIONAL CAR WHEEL CHUCK.

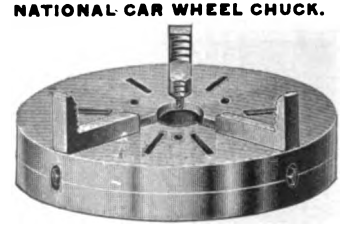

FIG. 2466.

National Cutting Off Chucks.

Size ..... inches	6	9	12	15	18	21	24
Size of Hole ..... inches	2	2¾	3	4	5¼	6	8¼
Price, 3 Jaw ..... each	26.00	34.00	44.00	52.00	62.00	80.00	100.00
Price, 4 Jaw ..... each	32.00	42.00	56.00	64.00	75.00	95.00	120.00

National Car Wheel Chucks.

Size ..... inches	30	36	42
Price ..... each	180.00	240.00	290.00

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THE W. M. PATTISON SUPPLY CO. 923 CLEVELAND

CUSHMAN UNIVERSAL GEARED SCROLL CHUCKS.

Non-Reversible Jaws.

NUMBER 1 JAWS.

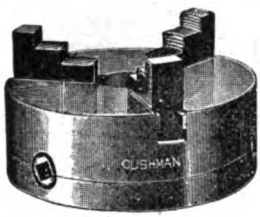

FIG. 2467.

NUMBER 2 JAWS.

FIG. 2468.

NUMBER 3 JAWS.

FIG. 2469.

Nominal Size and Diameter of Body, Inches.	Size of Hole, Inches,	Recess for Flange, Inches.	Price, 3 Jaw With Style No. 1, 2 or 3 Jaws, Each.	Price, 3 Jaw With Two Sets; Styles No. 1 and 2 Jaws, Each.	Price, 4 Jaw With Style No. 1, 2 or 3 Jaws, Each,	Price, 4 Jaw With Style No. 1, 2 or 3 Jaws, Each.
2	$\frac{1}{2}$	.....	6.00	7.50	.....	.....
$2\frac{1}{2}$	$\frac{5}{8}$	$1\frac{7}{8}$	7.50	9.00	.....	.....
3	$\frac{5}{8}$	$2\frac{7}{8}$	10.00	12.00	10.75	13.35
4	1	$3\frac{1}{16}$	12 00	14.40	13.00	16.20
5	$1\frac{1}{4}$	$3\frac{3}{4}$	15.00	18.00	16.20	20.20
6	$1\frac{9}{16}$	$4\frac{3}{4}$	18.00	21.60	19.50	24.30
$7\frac{1}{2}$	2	$4\frac{3}{4}$	20.00	24.00	21.60	26.90
9	$2\frac{1}{2}$	$5\frac{3}{4}$	24.00	28.80	26.00	32.40
$10\frac{1}{2}$	3	$5\frac{3}{4}$	27.00	32.40	29.10	36.40
12	3	7	30.00	36.00	32.40	40.40
15	$3\frac{1}{4}$	7	40.00	48.00	43.30	53.90

NATIONAL GEARED SCROLL CHUCKS.

FIG. 2470.

Size ..... inches	$2\frac{1}{2}$	3	4	6	9
Price, 3 Jaw..... each	7.50	10.00	12.00	18.00	24.00

Two sets of Solid Jaws or Reversible Two Piece Jaws furnished as ordered.

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UNION GEARED SCROLL CHUCKS.

INSIDE JAWS.

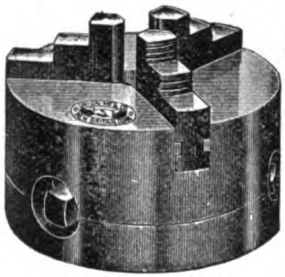

FIG. 2471.

OUTSIDE JAWS.

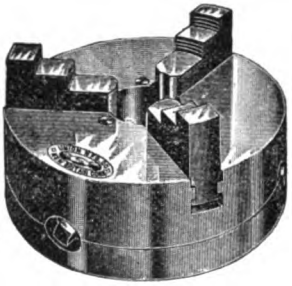

FIG. 2472.

REVERSIBLE JAWS.

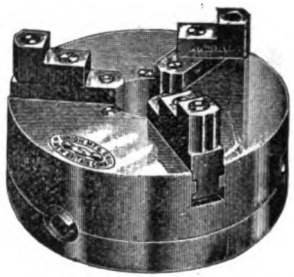

FIG. 2473.

TWO SETS OF JAWS, INSIDE AND OUTSIDE.

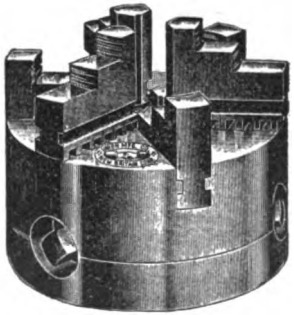

FIG. 2474.

Diameter, Inches.	Size of Hole, Inches.	Face Plate, Inches.	Price, 3 Jaw, Inside, Outside or Reversible, Each.	Price, 3 Jaw, Two Sets, Each.	Price, 4 Jaw, Inside, Outside or Reversible, Each.	Price, 4 Jaw, Two Sets, Each.
2½	⅝	....	7.50	9.00	....	....
3	⅝	2 ⅞	10.00	12.00	11.00	13.60
4	⅝	3 1⅛	12.00	14.40	13.20	16.40
5	⅞	3 ¾	15.00	18.00	16.50	20.50
6	1 9/16	4 ¾	18.00	21.60	19.80	24.60
7½	2	4 ¾	20.00	24.00	22.00	27.30
9	2 ½	5 ¾	24.00	28.80	26.40	32.80
10½	3	5 ¾	27.00	32.40	29.70	37.00
12	3	7	30.00	36.00	33.00	41.00
15	3 ¼	8	40.00	48.00	44.00	54.60
18	3 ½	10	55.00	66.00	62.00	77.00
21	4 ½	11	80.00	96.00	90.00	110.00

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THE W. M. PATTISON SUPPLY CO. 925 CLEVELAND

INDEPENDENT AND UNIVERSAL BOX CHUCKS.

CUSHMAN.

FIG. 2475.

NATIONAL.

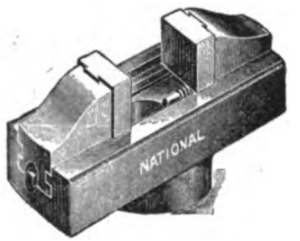

FIG. 2476.

UNION.

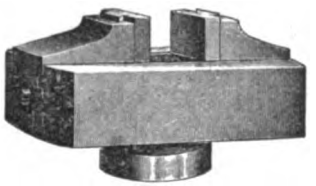

FIG. 2477.

Cushman Independent and Universal Box Chucks.

Size, Inches.	Size of Hole in Hub, Inches.	Diameter of Hub, Inches.	Width of Jaws, Inches.	DIMENSIONS OF BODY, INCHES.				Price, Each.	Price, Extra Iron Slips Per Pair.	Price, Extra Steel Slips, Per Pair.
				Face to Top of Jaws.	Face to End of Hub.	Length	Width.			
7	1 1/4	3 1/4	1 3/4	1 3/4	3 1/4	7	3	24.00	1.00	2.00
9	1 3/8	4	2	2	4 1/4	9	4	30.00	1.25	3.00
12	1 3/8	4 3/8	2 1/4	2 7/8	4 3/4	12	4 1/2	36.00	1.25	4.00
15	1 3/8	5	2 1/4	3 1/2	5 3/8	15	5	42.00	1.50	5.00
18	1 1/4	5	2 1/4	6	5 3/8	18	5 3/8	60.00	2.00	6.00

National and Union Independent and Universal Box Chucks.

Size, Inches.	Jaws Open, Inches	Price, Each.	Price, Extra Iron Slips, Per Pair.	Price, Extra Steel Slips, Per Pair,
7	3	24.00	1.00	2.00
9	4	30.00	1.25	3.00
12	6	36.00	1.25	4.00
15	8	42.00	1.50	5.00

Above prices include one set of false Jaws or Slips.

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INDEPENDENT AND UNIVERSAL 2 JAW CHUCKS.

CUSHMAN; WITH V JAWS.

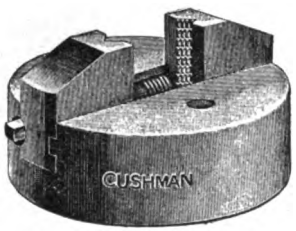

FIG. 2478.

CUSHMAN; WITH SLIP JAWS.

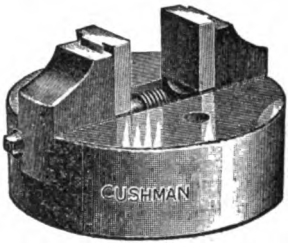

FIG. 2479.

ONEIDA NATIONAL; WITH SLIP JAWS.

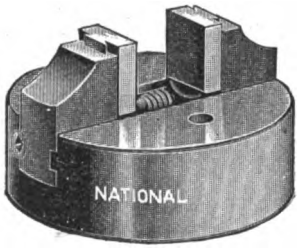

FIG. 2480.

Cushman Independent and Universal 2 Jaw Chucks.

Size, Inches.	Size of Hole, Inches.	Recess For Flange, Inches.	Width of Jaws, Inches.	Depth of V Groove, Inches.	Thickness of Body, Inches.	Price, with V Jaws, Each.	Price, with Slip Jaws, Each.	Price, Extra Iron Slips, Per Pair.	Price, Extra Steel Slips, Per Pair.
4½	1	4 1/8	1 3/16	1/16	2	12.00	16.00	1.00	2.00
6	1¼	5 5/16	1 3/4	1/16	2	18.00	20.00	1.00	2.00
7	1½	6 1/16	1 1/4	1/16	3 5/16	24.00	24.00	1.00	2.00
9	1¾	6 1/16	2	1/16	3 ¼	30.00	30.00	1.25	3.00
10½	2	6 1/16	2 1/16	1/16	3 ¼	33.00	33.00	1.25	3.00
12	2¼	9 ½	2 ¼	1/16	3 ½	36.00	36.00	1.25	4.00

Oneida National Independent and Universal 2 Jaw Chucks.

Size, Inches.	Size of Hole, Inches.	Price, Each.	Price, Extra Iron Slips, Per Pair.	Price, Extra Steel Slips, Per Pair.
4	1	16.00	1.00	1.75
6	1¼	20.00	1.00	2.00
8	1¾	26.00	1.00	2.00
9	2	30.00	1.25	3.00
12	2½	36.00	1.25	4.00
14	3	40.00	1.25	4.50

Above prices include one set of False Jaws.

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THE W. M. PATTISON SUPPLY CO. 827 CLEVELAND

PLANER CHUCKS.

SQUARE BASE.

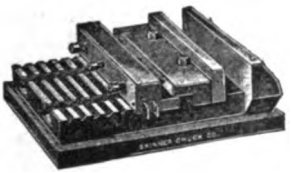

FIG. 2481.

ROUND SWIVEL BASE.

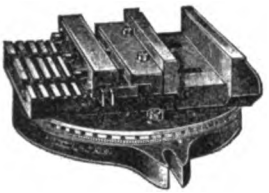

FIG. 2482.

Size, Inches.	Price, Square Base, Each.	Price, Round Base, Each.	ROUND OR SQUARE. DIMENSIONS, INCHES. Length of Jaw, Inches.	Depth of Jaw, Inches.	Jaws Will Open, Inches.	Square Base, Space Required, Inches.	Round Base, Space Required, Inches.	Square Base, Weight, Pounds.	Round Base, Weight, Pounds.
6	20.00	25.00	7	1⅛	3½	7¼ x 11	10	55	75
8	25.00	30.00	9	1⅛	5	9 x 12½	12½	65	95
10	30.00	36.00	11	2⅛	6	11 x 15	14½	110	150
12	35.00	40.00	13	2⅛	8	13 x 17	16¾	130	200
15	45.00	50.00	15½	2½	9½	15½ x 21	20	220	300
18	55.00	60.00	18½	2⅛	11¼	18¾ x 24	23	310	420
24	75.00	90.00	24¼	2⅛	16	24¼ x 28	27	440	645
30	100.00	120.00	30¼	2¼	21½	30½ x 34	34	510	750

All Round Base Chucks are accurately graduated, and have a rib 1¼ inches wide cast on the bottom to be fitted to slot in Planer table.

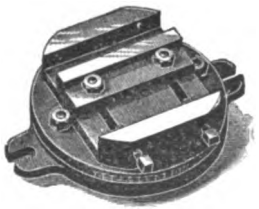

FIG. 2483.

Size, Inches.	Price, Each.	Length of Jaw, Inches.	Depth of Jaw, Inches.	Jaws Will Open, Inches.	Weight, Pounds.
12	25.00	9	2½	5	100
18	30.00	12½	2½	8½	200

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

FACE PLATE JAWS.

CUSHMAN.

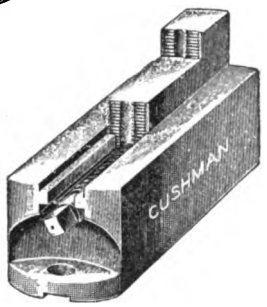

FIG. 2484.

NATIONAL; REVERSIBLE.

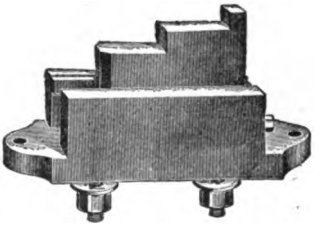

FIG. 2485.

ONEIDA NATIONAL; REVERSIBLE.

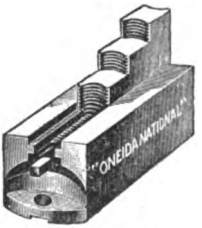

FIG. 2486.

Cushman Face Plate Jaws.

Size and Length of Body. Inches.	Price, 8 Jaws, Per Set.	Price, 4 Jaws, Per Set.	DIMENSIONS, INCHES.						Weight Pounds
			Length Over All.	Width of Body.	Height of Body.	Length of Jaw.	Width of Jaw.	Center to Center of Bolts.	
6	36.00	48.00	$7\frac{1}{4}$	$3\frac{1}{4}$	3	$4\frac{3}{8}$	$1\frac{1}{2}$	6	15
8	45.00	60.00	$9\frac{5}{8}$	$3\frac{1}{2}$	$3\frac{1}{8}$	5	$1\frac{1}{2}$	$8\frac{3}{8}$	23
10	60.00	80.00	12	$4\frac{1}{4}$	4	6	$1\frac{3}{4}$	$10\frac{3}{8}$	40
12	90.00	120.00	14	5	$4\frac{1}{2}$	$7\frac{1}{8}$	2	$12\frac{1}{8}$	60
14	120.00	160.00	16	$5\frac{5}{8}$	$4\frac{7}{8}$	8	$2\frac{1}{4}$	$14\frac{1}{8}$	100

National Reversible Face Plate Jaws.

Size, Inches.	Price, 8 Jaws, Per Set.	Price, 4 Jaws, Per Set.	DIMENSIONS, INCHES.			Weight, Pounds.
			Length of Body.	Length Over All.	Extreme Height.	
8	45.00	60.00	$7\frac{1}{2}$	$11\frac{7}{8}$	$5\frac{1}{4}$	21
10	60.00	80.00	$10\frac{1}{4}$	14	$5\frac{5}{8}$	26

Oneida National Face Plate Jaws.

Size, Inches.	Price, 8 Jaws. Per Set.	Price, 4 Jaws. Per Set.	DIMENSIONS, INCHES.			
			Length.	Height of Body.	Height of Jaw.	Width of Jaw.
8	50.00	65.00	8	4	$2\frac{3}{4}$	$1\frac{3}{4}$
10	65.00	85.00	10	4	$2\frac{3}{4}$	$1\frac{3}{4}$
12	95.00	125.00	12	$4\frac{1}{2}$	3	2
14	120.00	150.00	14	$4\frac{1}{2}$	3	$2\frac{1}{16}$

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THE W. M. PATTISON SUPPLY CO. 929 CLEVELAND

CHUCKS, ETC.

DRILL PRESS CHUCK.

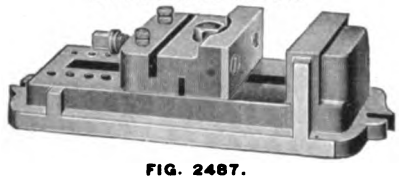

FIG. 2487.

Drill Press Chucks.

Width of Jaw	inches	5
Depth of Jaw	inches	2
Opens	inches	6
Price	each	12.50

PLANER CENTERS.

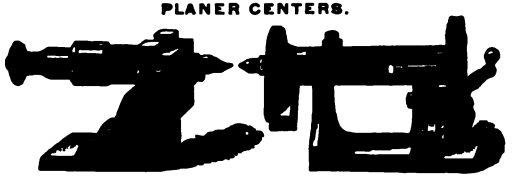

FIG. 2488.

Price, No. 2, Swings 10 inches	each	40.00
Price, No. 1, Swings 16 inches	each	50.00

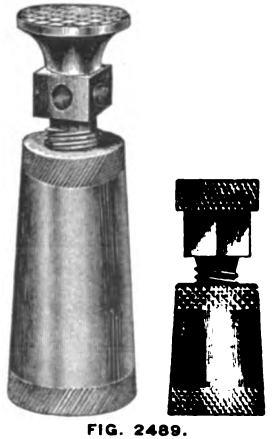

FIG. 2489.

Little Giant Jack Screws.

Number		1	2	3	4
Capacity	pounds	800	1100	1400	2600
Height	inches	1¾	2¾	3¾	5
Rise	inches	¾	1⅜	2½	2⅝
Price, Flat Top	each	.50	.65	.75	.85
Price, Ball Swivel Top	each	.60	.75	.85	1.00

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THE W. M. PATTISON SUPPLY CO. 930 CLEVELAND

HAND FORGED LATHE AND PLANER TOOLS.

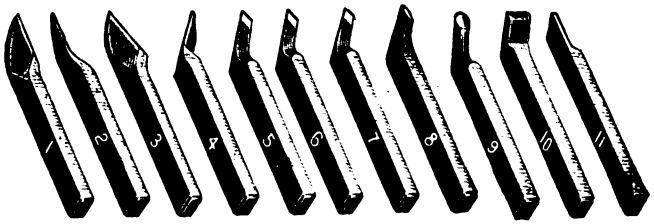

FIG. 2490.

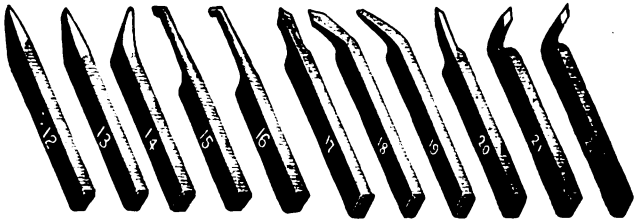

FIG. 2491.

No.		No.		No.	
1	Left Side Tool.....	8	Half Diamond Point...	16	Inside Thread Tool.....
2	Right Side Tool.....	9	Round Nose.....	17	Straight Centering Tool .....
3	Left Side Tool, Bent...	10	Water Finishing Tool	18	Bent Centering Tool...
4	Right Side Tool, Bent	11	Cutting off Tool.....	19	Bent Re-Centering Tool .....
5	Heavy Diamond Point for Cast Iron	12	Roughing Tool.....	20	Straight Re-Centering Tool.....
6	Diamond Point, Right Hand for Steel and Wrought Iron...	13	Thread Tool.....	21	Diamond Point, Bent..
		14	Bent Thread Tool.....	22	Half Daimond Point, Bent,.....
7	Diamond Point, Left Hand for Steel and Wrought Iron.....	15	Inside Turning Tool...	.....	.....
.....	.....	.....	.....	.....	.....

Size .....inches	$\frac{1}{4} \times \frac{1}{2}$	$\frac{5}{16} \times \frac{5}{8}$	$\frac{3}{8} \times \frac{3}{4}$	$\frac{1}{2} \times 1$	$\frac{5}{8} \times 1\frac{1}{4}$
Price.....per set of 12	3.50	4.00	6.00	8.00	10.00
Price..... .....each	.35	.40	.60	.80	1.00

These Tools are made from the best steel, ground and tempered ready for use.

They are correct in shape and made with special care, so that they can be used until worn out without re-forging.

In ordering always specify by number, style of tool wanted, size of stock in shank, whether for lathe or planer.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 931

LATHE AND PLANER TOOLS.

CHAMPION; STRAIGHT AND OFF-SET.

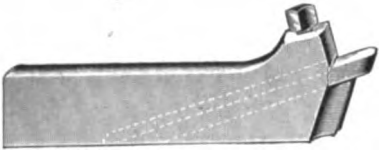

FIG. 2492.

FIG 2493.

FIG. 2494.

Straight Holder.....inches	$\frac{5}{16}$ x $\frac{3}{4}$ x 5	$\frac{1}{2}$ x 1 x 6	$\frac{5}{8}$ x 1$\frac{1}{4}$ x 7	$\frac{3}{4}$ x 1$\frac{3}{8}$ x 8	$\frac{7}{8}$ x 1$\frac{1}{2}$ x 9	1 x 1$\frac{5}{8}$ x 10
Offset Holder.....inches	$\frac{5}{16}$ x $\frac{3}{4}$ x 7	$\frac{1}{2}$ x 1 x 8	$\frac{5}{8}$ x 1$\frac{1}{4}$ x 9	$\frac{3}{4}$ x 1$\frac{3}{8}$ x 10	$\frac{7}{8}$ x 1$\frac{1}{2}$ x 11	1 x 1$\frac{5}{8}$ x 12
Cutter (Square).....inches	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$
Price ..... each	1.65	1.80	2.30	3.00	3.80	4.75
Price, Extra Cutters ... each	.12	.15	.22	.30	.40	.50

Straight Holder.....inches	1$\frac{1}{4}$x1$\frac{7}{8}$x12	1$\frac{1}{2}$x2$\frac{1}{4}$x14	2 x 2$\frac{1}{2}$ x 16	2$\frac{1}{2}$x2$\frac{3}{4}$x18	3 x 3 x 20	.....
Offset Holder.....inches	1$\frac{1}{4}$x1$\frac{7}{8}$x15	1$\frac{1}{2}$x2$\frac{1}{4}$x18	2 x 2$\frac{1}{2}$ x 18	2$\frac{1}{2}$x2$\frac{3}{4}$x20	3 x 3 x 24	.....
Cutter (Square).....inches	$\frac{5}{8}$	$\frac{3}{4}$	1	1$\frac{1}{4}$	1$\frac{1}{2}$	.....
Price ..... each	7.00	12.00	17.50	25.00	35.00	.....
Price, Extra Cutters ... each	.75	1.25	2.50	3.75	5.25	.....

ARMSTRONG; STRAIGHT AND OFF-SET.

FIG. 2495.

FIG. 2496.

FIG. 2497.

Straight Holder.....inches	$\frac{5}{16}$ x $\frac{5}{8}$ x 4$\frac{1}{2}$	$\frac{3}{8}$ x $\frac{3}{4}$ x 5	$\frac{1}{2}$ x 1 x 6	$\frac{5}{8}$ x 1$\frac{1}{4}$ x 7	$\frac{3}{4}$ x 1$\frac{1}{2}$ x 8	$\frac{7}{8}$ x 1$\frac{5}{8}$ x 9
Offset Holder.....inches	$\frac{5}{16}$ x $\frac{5}{8}$ x 5	$\frac{3}{8}$ x $\frac{3}{4}$ x 6	$\frac{1}{2}$ x 1 x 8	$\frac{5}{8}$ x 1$\frac{1}{4}$ x 9	$\frac{3}{4}$ x 1$\frac{1}{2}$ x 10	$\frac{7}{8}$ x 1$\frac{5}{8}$ x 11
Cutter (Square).....inches	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$
Price ..... each	1.60	1.65	1.80	2.30	3.00	3.80
Price, Extra Cutters ... each	.10	.12	.18	.25	.35	.45

Straight Holder.....inches	1x1$\frac{3}{4}$x11	1$\frac{1}{4}$ x 2 x 13	1$\frac{1}{2}$x2$\frac{1}{4}$x16	1$\frac{5}{8}$x2$\frac{1}{2}$x18	1$\frac{3}{4}$x2$\frac{3}{4}$x20	.....
Offset Holder.....inches	1x1$\frac{3}{4}$x12$\frac{1}{2}$	1$\frac{1}{4}$ x 2 x 15	1$\frac{1}{2}$x2$\frac{1}{4}$x20	1$\frac{5}{8}$x2$\frac{1}{2}$x22	1$\frac{3}{4}$x2$\frac{3}{4}$x24	.....
Cutter (Square).....inches	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	1$\frac{1}{8}$	.....
Price ..... each	4.75	7.00	12.00	17.50	23.00	.....
Price, Extra Cutters ... each	.65	1.00	1.75	2.50	2.25	.....

Price-of-Armstrong Tools are for complete tools with drop forged wrench and two self-hardening steel cutters.

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THE W. M. PATTISON SUPPLY CO. 932 CLEVELAND

LATHE AND PLANER TOOLS.

HILL, DIAMOND POINT.

FIG. 2498.

FIG. 2499.

FIG. 2500.

Holder..... inches	⅜x¾x5	½x1x6	⅝x1¼x7	¾x1½x8	⅞x1⅝x10	1x1¾x12	1¼x2x14
Cutter (Square).....inches	3/16	¼	5/16	⅜	7/16	½	⅝
Price.....each	1.60	1.75	2.25	2.75	3.50	4.25	6.25
Price, Extra Cutters.....each	.10	.12	.18	.25	.35	.45	.65

EBERHARDT.

FIG. 2501.

FIG. 2502.

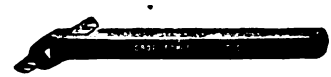

FIG. 2503.

Holder..... inches	⅜x¾x5	½x1x7	⅝x1¼x7	¾x1⅜x9
Cutter (Square).....inches	3/16	¼	5/16	⅜
Price.....each	1.65	1.80	2.30	3.00
Price, Extra Cutters..... each	.10	.12	.18	.25

Holder..... inches	⅞x1½x10	1x1⅝x11	1¼x1⅞x12	1½x2¼x16
Cutter (Square).....inches	7/16	½	⅝	¾
Price,.....each	3.80	4.75	7.00	12.00
Price Extra Cutters.....each	.35	.45	.65	1.00

Price of Eberhardt Tools includes wrench and three cutters of self-hardening steel.

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LATHE AND PLANER TOOLS.

WOODBRIDGE; LATHE AND PLANER.

FIG. 2504.

Dimensions.....inches	$\frac{5}{8}$ x $\frac{5}{16}$ x 4½	¾ x $\frac{5}{16}$ x 4½	1⅛ x ½ x 6	1⅜ x ½ x 6
Price.....each	2.50	2.50	3.00	3.00
Price, Extra Cutters.....each	.25	.25	.25	.25

Dimensions.....inches	1½ x ¾ x 8	2 x 1 x 8	2½ x 1 x 8	2¾ x 1¼ x 10
Price.....each	4.00	6.00	7.00	9.00
Price, Extra Cutters.....each	.40	.50	.50	.75

CHAMPION; PLANER.

FIG. 2505.

ARMSTRONG; PLANER.

FIG. 2506.

Champion Planer Tools.

Holder.....inches	½ x 1 x 8	⅝ x 1¼ x 9	¾ x 1⅜ x 10	⅞ x 1½ x 11	1 x 1⅝ x 12½
Cutter (Square).....inches	$\frac{5}{16}$	⅜	$\frac{7}{16}$	½	⅝
Price.....each	2.75	3.50	5.25	6.00	7.00
Price, Extra Cutters.....each	.22	.30	.40	.50	.75

Holder.....inches	1½ x 2 x 15	2 x 2½ x 20	2½ x 2¾ x 24	3 x 3 x 30	.....
Cutter (Square).....inches	¾	⅞	1¼	1½	.....
Price.....each	11.00	16.00	25.00	35.00	.....
Price, Extra Cutters.....each	1.25	1.50	3.00	4.75	.....

Armstrong Planer Tools.

Holder.....inches	½x1x7	⅝x1¼x8½	¾x1¼x10	1⅛x1½x13	1⅜x1¾x16	1⅝x2x20	2⅛x2⅜x24
Cutter.....inches	¼x⅜	$\frac{5}{16}$x$\frac{7}{16}$	⅜x½	½x¾	⅝x⅞	¾x1	⅞x1⅛
Price.....each	2.75	3.50	4.50	7.00	11.00	16.00	25.00
Price, Extra Cutters, each	.20	.30	.40	.70	1.00	2.00	3.00

Price of Armstrong Tools includes two self-hardening steel cutters and a drop forged wrench.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

LATHE AND PLANER TOOLS.

CHAMPION SIDE TOOLS.

RIGHT HAND.

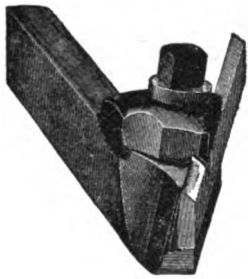

FIG. 2507.

LEFT HAND.

FIG. 2508.

Holder.....inches	$\frac{1}{2}$x1x6	$\frac{5}{8}$x1$\frac{1}{4}$x7	$\frac{3}{4}$x1$\frac{1}{2}$x8	$\frac{7}{8}$x1$\frac{5}{8}$x9	1x1$\frac{3}{4}$x10
Cutter.....inches	$\frac{3}{16}$x$\frac{3}{4}$x5	$\frac{1}{4}$x1x6	$\frac{5}{16}$x1$\frac{1}{2}$x7	$\frac{5}{16}$x1$\frac{1}{2}$x8	$\frac{3}{8}$x1$\frac{5}{8}$x9
Price.....each	2.50	3.00	3.80	4.75	6.75
Price, Extra Cutters.....each	.50	.75	1.10	1.35	1.90

HILL SIDE TOOLS.

STRAIGHT.

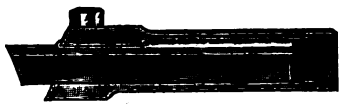

FIG. 2509.

OFF-SET.

FIG. 2510.

Straight Holder.....inches	$\frac{1}{2}$x1$\frac{1}{8}$x6$\frac{1}{4}$	$\frac{3}{4}$x1$\frac{1}{2}$x7$\frac{3}{4}$	$\frac{3}{4}$x1$\frac{3}{4}$x8$\frac{1}{4}$
Offset Holder.....inches	$\frac{1}{2}$x1x5	$\frac{5}{8}$x1$\frac{3}{4}$x7$\frac{1}{2}$	$\frac{3}{4}$x1$\frac{1}{2}$x8
Cutter.....inches	$\frac{5}{16}$x$\frac{3}{4}$x5	$\frac{3}{8}$x1x6	$\frac{1}{2}$x1$\frac{1}{4}$x7
Price.....each	2.50	2.85	3.25
Price, Extra Cutters.....each	.60	.75	1.00

Price of Hill Tools includes wrench and one self-hardening steel cutter.

ARMSTRONG GANG PLANER TOOLS.

FIG. 2511.

Shank, Inches.	Length Over All, Inches.	Length of Shank, Inches.	Size of Cutters, Inches.	Feed Adjustment, Inches.	Price, Complete, Each.	Price, Extra Cutters, Each.
1$\frac{1}{4}$ x 1$\frac{3}{4}$	10	7$\frac{1}{2}$	$\frac{3}{8}$ x $\frac{1}{2}$	0 to $\frac{1}{4}$	12.00	.35
1$\frac{5}{8}$ x 2$\frac{1}{4}$	12	9	$\frac{1}{2}$ x $\frac{11}{16}$	0 to $\frac{3}{8}$	20.00	.60
2 x 2$\frac{1}{2}$	14	12	$\frac{5}{8}$ x $\frac{7}{8}$	0 to $\frac{1}{2}$	35.00	.100

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LATHE TOOLS.

CHAMPION CUTTING-OFF TOOLS.

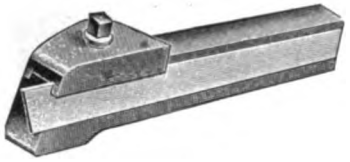

FIG. 2512.

FIG. 2513.

Holder .....inches	$\frac{5}{8}$x$\frac{3}{4}$x5	$\frac{1}{2}$x1x6	$\frac{5}{8}$x1$\frac{1}{4}$x7	$\frac{3}{4}$x1$\frac{3}{8}$x8	$\frac{7}{8}$x1$\frac{1}{2}$x9	1x1$\frac{1}{4}$x10	1$\frac{1}{8}$x2x11
Cutter.....inches	$\frac{3}{32}$x$\frac{1}{2}$x5$\frac{1}{2}$	$\frac{1}{8}$x$\frac{5}{8}$x6$\frac{1}{2}$	$\frac{1}{8}$x$\frac{1}{4}$x7$\frac{1}{2}$	$\frac{5}{16}$x1x8$\frac{1}{2}$	$\frac{3}{16}$x1$\frac{1}{8}$x9$\frac{1}{2}$	$\frac{1}{4}$x1$\frac{1}{4}$x10$\frac{1}{2}$	$\frac{1}{4}$x1$\frac{3}{8}$x11$\frac{1}{2}$
Price.....each	1.65	1.80	2.30	3.00	3.80	4.75	6.50
Price, Extra Cutters...each	.25	.35	.45	.60	.75	.95	1.25

ARMSTRONG CUTTING-OFF TOOLS.

FIG. 2514.

FIG. 2515.

Holder .....inches	$\frac{5}{8}$x1x5	$\frac{1}{2}$x1$\frac{1}{8}$x6	$\frac{5}{8}$x1$\frac{1}{8}$x7	$\frac{3}{4}$x1$\frac{1}{2}$x8	$\frac{7}{8}$x1$\frac{5}{8}$x9	1x1$\frac{1}{4}$x10	1$\frac{1}{8}$x2x11
Cutter.....inches	$\frac{3}{32}$x$\frac{5}{8}$x5$\frac{1}{2}$	$\frac{1}{8}$x$\frac{3}{4}$x6$\frac{1}{2}$	$\frac{1}{8}$x$\frac{7}{8}$x7$\frac{1}{2}$	$\frac{3}{16}$x1x8$\frac{1}{2}$	$\frac{3}{16}$x1$\frac{1}{8}$x9$\frac{1}{2}$	$\frac{1}{4}$x1$\frac{1}{4}$x10$\frac{1}{2}$	$\frac{1}{4}$x1$\frac{3}{8}$x11$\frac{1}{2}$
Price.....each	1.65	1.80	2.30	3.00	3.80	4.75	6.50
Price, Extra Cutters...each	.25	.35	.45	.60	.75	95	1.25

HILL CUTTING-OFF TOOLS.

FIG. 2516.

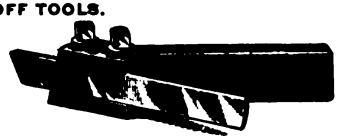

FIG. 2517.

Straight.

Holder.....inches	$\frac{1}{2}$x1$\frac{1}{8}$x6$\frac{1}{8}$	$\frac{5}{8}$x1$\frac{1}{2}$x7$\frac{3}{8}$	$\frac{3}{4}$x1$\frac{3}{8}$x8$\frac{1}{4}$
Cutter.....inches	$\frac{1}{8}$x$\frac{3}{8}$x6	$\frac{3}{16}$x$\frac{7}{8}$x7	$\frac{3}{16}$x1x8
Price.....each	2.00	2.60	3.00

Off-Set.

Holder.. .....inches	$\frac{5}{8}$x$\frac{3}{4}$x5	$\frac{1}{2}$x1x6	$\frac{5}{8}$x1$\frac{3}{8}$x7$\frac{1}{2}$	$\frac{3}{4}$x1$\frac{1}{2}$x8	$\frac{7}{8}$x1$\frac{3}{4}$x9	1x2x12
Cutter .....inches	$\frac{1}{4}$x$\frac{5}{8}$x6	$\frac{1}{8}$x$\frac{5}{8}$x6	$\frac{3}{16}$x$\frac{1}{4}$x7	$\frac{3}{16}$x1x8	$\frac{1}{4}$x1$\frac{1}{4}$x9	$\frac{1}{4}$x1$\frac{1}{4}$x10
Price.....each	2.00	2.25	2.60	3.00	4.50	6.50

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LATHE TOOLS.

JOHNSON CUTTING-OFF TOOLS.

FIG. 2518.

Number.	Holder, Height, Thickness, Length, Inches.	Cutters, Thickness, Width, Inches.	Price, With One Cutter, Each.	Price, Extra Cutters, Each.
00	$\frac{3}{4}$ x $\frac{5}{16}$ x 4½	.....$\frac{1}{32}$, $\frac{3}{64}$, $\frac{1}{16}$, $\frac{5}{64}$	2.50	.40
0	1 x $\frac{5}{16}$ x 5	.....$\frac{1}{16}$, $\frac{3}{32}$, $\frac{1}{8}$	2.50	.40
1	1$\frac{3}{16}$ x $\frac{1}{2}$ x 6	.....$\frac{1}{16}$, $\frac{3}{32}$, $\frac{1}{8}$, $\frac{5}{32}$	2.50	.45
2	1¼ x $\frac{5}{32}$ x 6	.....$\frac{3}{16}$, $\frac{7}{32}$, $\frac{1}{4}$	2.50	.50
3	1$\frac{3}{8}$ x $\frac{9}{16}$ x 6½	.....$\frac{3}{32}$, $\frac{1}{8}$, $\frac{1}{16}$	3.00	.55
4	1$\frac{11}{16}$ x $\frac{5}{8}$ x 6½	..... $\frac{1}{4}$, $\frac{5}{16}$	3.25	.65

THREADING TOOLS.

ARMSTRONG.

FIG. 2519.

HILL.

FIG. 2520.

Armstrong.

Holder, Inches.	Pitches, Threads, Per Inch.	Price, with V or U. S. Standard Cutters, Each.	PRICE, SINGLE POINT CUTTERS, EACH.		
			V Thread.	U. S. Standard Thread.	Whitworth, Thread.
$\frac{5}{16}$ x $\frac{5}{16}$ x 5	6 to 20	2.25	.45	.50	.75
⅜ x ¾ x 5	6 to 20	2.25	.45	.50	.75
½ x 1 x 6	5 to 20	2.75	.55	.60	.90
$\frac{5}{8}$ x 1¼ x 7	4 to 20	3.50	.70	.75	1.15
¾ x 1½ x 8	3 to 20	4.50	.90	.95	1.40

Hill.

Holder, Inches.	V Threads, Per Inch.	U. S. Standard Threads, Per Inch.	Price, Each.	PRICE, EXTRA CUTTERS, EACH.	
				Single Point Sharp V Cutters.	U. S. Standard Cutters.
⅜ x ¾ x 5	9 to 30	8, 9, 10, 11, 12, 13, 14, 16, 18	2.00	.50	.55
½ x 1 x 6	8 to 30	...8, 9, 10, 11, 12, 13, 14, 16	2.50	.65	.75
$\frac{5}{8}$ x 1¼ x 7	5 to 30	6, 8, 9, 10, 11, 12, 13, 14, 16	3.00	.75	.90
¾ x 1½ x 8	4 to 30	...4, 5, 6, 8, 9, 10, 11, 12	4.00	1.00	1.20

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THE W. M. PATTISON SUPPLY CO. 937 CLEVELAND

P. AND W. THREADING TOOL.

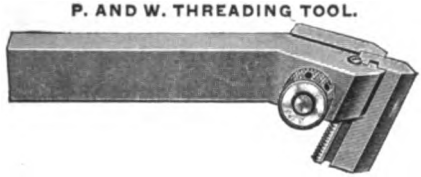

FIG. 2521.

Holder, Inches.	Price, With One Cutter, Each.	V and U. S. Standard Threads, Per Inch.	Cutter, Inches.	PRICE. EXTRA CUTTERS, EACH.	
				Single Point.	Chasers.
¾ x ⅜ x 5½	2.75	.....4 to 20	⅛ x ¼ x 2⅛	.50	.....
1 x ½ x 6	2.75	....3, 3½, 3½	1⅛ x ½ x 2⅛	1.00	.....
1½ x ⅝ x 8½	5.00	.....4, 4½, 5, 5½	.....	.....	1.20
.....	.....	.....6, 7, 8	.....	.....	1.00
.....	.....	..9, 10, 11, 11½, 12, 13	.....	.....	.90
.....	.....	....14, 16, 18, 20	.....	.....	.90

CHAMPION BORING TOOL ATTACHMENT.

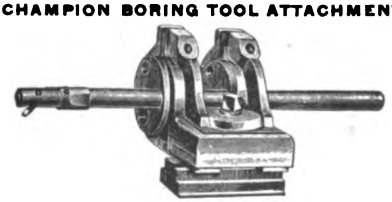

FIG. 2522.

Boring Bar, Inches.	Cutters, Inches.	Price, Each.	Price, Extra Boring Bars, Each.
⅝ x 18	⅜	12.50	2.75
⅞ x 18	¼	12.50	3.25
1⅛ x 18	⅜	12.50	4.00
1⅛ x 24	⅜	15.00	4.00
1¼ x 24	⅜	15.00	4.25
1½ x 24	½	15.00	4.50

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ARMSTRONG BORING TOOLS.

FIG. 2523.
No. 8 to 12.

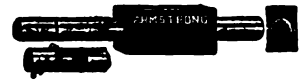

FIG. 2524.
No. 15 to 17.

Number.	Shank, Inches.	Diameter of Bar, Inches.	Length of Bar, Inches.	Square Cutter, Inches.	Price, Complete, Each.	Price, Less Shank, With Bushing, Each.	Price, Extra Cutters, Each.
8	$\frac{3}{4}$ x $\frac{3}{4}$	$\frac{9}{16}$	.....	$\frac{9}{16}$	3.00	1.75	.12
9	$\frac{1}{2}$ x 1	$\frac{3}{4}$	.....	$\frac{1}{4}$	3.60	2.25	.15
10	$\frac{5}{8}$ x 1$\frac{1}{4}$	$\frac{15}{16}$	.....	$\frac{5}{16}$	4.75	3.25	.20
11	$\frac{3}{4}$ x 1$\frac{1}{2}$	1$\frac{1}{8}$	.....	$\frac{3}{8}$	6.75	4.50	.30
12	$\frac{7}{8}$ x 1$\frac{5}{8}$	1$\frac{5}{16}$	.....	$\frac{7}{16}$	10.00	.....	.40
15	1$\frac{1}{8}$ x 2$\frac{1}{8}$	1$\frac{5}{16}$	18	$\frac{7}{16}$	8.75	.....	.40
16	1$\frac{7}{8}$ x 2$\frac{3}{4}$	1$\frac{1}{2}$	21	$\frac{1}{2}$	10.50	.....	.50
17	2$\frac{1}{4}$ x 2$\frac{3}{4}$	1$\frac{13}{16}$	24	$\frac{5}{8}$	13.75	.....	.70

Boring Tools less shank, with Bushing, fit the following Shanks: No. 8; 9, 10 or 11: No. 9; 10, 11 or 12: No. 10; 11 or 12: No. 11; 12.

HILL BORING TOOLS.

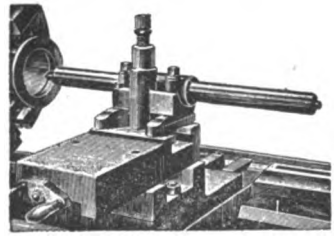

FIG. 2526.

Number.	Shank, Inches.	Diameter of Bar, Inches.	Standard Length of Bar, Inches.	Square Cutter, Inches.	Price, Complete, Each.	BARS WITHOUT HOLDERS. Price, With Screws and Cutters, Each.	BARS WITHOUT HOLDERS. Price, Bars Longer than Standard to 24 Inch, Each.	Price, Extra Cutters Each.
13	$\frac{1}{2}$ x 1	$\frac{3}{4}$	12	$\frac{1}{4}$	3.50	1.75	2.00	.15
14	$\frac{3}{4}$ x 1$\frac{1}{4}$	1	15	$\frac{5}{16}$	4.50	2.25	2.60	.20
15	$\frac{3}{4}$ x 1$\frac{1}{2}$	1$\frac{1}{4}$	18	$\frac{3}{8}$	6.00	3.00	3.50	.30
16	$\frac{3}{4}$ x 1$\frac{1}{2}$	1$\frac{1}{2}$	22	$\frac{7}{16}$	9.00	4.50	5.00	.40
17	1 x 2	1$\frac{3}{4}$ or 2	24	$\frac{1}{2}$	12.00	6.00	.....	.50

For price of Bushings for Hill Boring Tools, see page 939.

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THE W. M. PATTISON SUPPLY CO. 939 CLEVELAND

LATHE TOOLS.

Hill Boring Tool Bushings.

Number.	Outside Diameter, Inches.	Hole, Inches.	Hole, Inches.	Hole, Inches.	Price, Each.
14	1	$\frac{3}{4}$	.....	.....	1.30
15	$1\frac{1}{4}$	1	$\frac{3}{4}$	.....	1.50
16	$1\frac{1}{2}$	$1\frac{1}{4}$	1	$\frac{3}{4}$	1.70
.....	$1\frac{3}{4}$ or 2	$1\frac{1}{2}$	$1\frac{1}{4}$	1	2.20

CHAMPION INSIDE TOOL HOLDER.

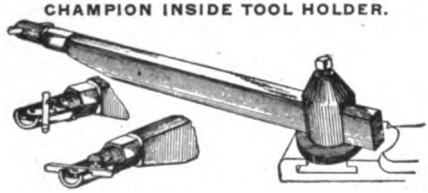

FIG. 2526.

Holder .....inches	$\frac{1}{2}$x1x12	$\frac{5}{8}$x1$\frac{1}{4}$x13	$\frac{3}{4}$x1$\frac{3}{8}$x14	$\frac{7}{8}$x1$\frac{1}{2}$x15	1x1$\frac{5}{8}$x17	1$\frac{1}{4}$x1$\frac{7}{8}$x19	1$\frac{1}{2}$x2$\frac{1}{4}$x24
Cutter (Square)..inches	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$
Price.....each	2.50	3.00	3.50	4.25	5.25	7.50	12.00
Price, Extra Cutters.each	.12	.15	.20	.25	.35	.40	.60

Square Self-Hardening Steel, for Champion Tool Holders; Furnished in 3 Foot Bars.

Size.....inches	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	1$\frac{1}{8}$	1$\frac{1}{4}$
Price.....each	.50	.60	.85	1.20	1.50	1.85	2.85	4.75	5.75	7.60	9.00	12.00

Double Bevel Rolled Steel, for Champion Cutting-Off Tool Holders; Furnished in 3 Foot Bars.

Size.....inches	$\frac{3}{32}$ x $\frac{1}{2}$	$\frac{1}{8}$ x $\frac{5}{8}$	$\frac{1}{8}$ x $\frac{7}{8}$	$\frac{3}{16}$ x $\frac{7}{8}$	$\frac{3}{16}$ x 1	$\frac{3}{16}$ x1$\frac{1}{8}$	$\frac{1}{4}$ x 1	$\frac{1}{4}$ x 1$\frac{1}{4}$	$\frac{1}{4}$ x 1$\frac{3}{8}$
Price .....each	.65	.85	1.00	1.40	1.60	2.00	2.00	2.75	3.10

Bevel Rolled Self-Hardening Steel, for Champion Side Tool Holders; Furnished in 3 Foot Bars.

Size.....inches	$\frac{3}{16}$ x $\frac{3}{4}$	$\frac{1}{4}$ x 1	$\frac{5}{16}$ x1$\frac{1}{8}$	$\frac{5}{16}$ x1$\frac{1}{4}$	$\frac{3}{8}$ x 1$\frac{3}{8}$
Price.....each	1.25	2.00	3.50	4.00	5.20

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

TOOL STEEL.

BORING BARS FOR TURRET LATHES.

FIG. 2527.

FIG. 2526.

Boring Bars of any Description Furnished to Order, Prices on Application.

Self-Hardening Steel, for Armstrong Tools; Furnished in 3 Foot Bars.

Size...square inches	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	1 1/8
Price.....each	.50	.60	.85	1.20	1.65	2.10	3.00	4.50	5.75	7.60	9.00

Size....inches	1/4 x 3/8	5/16 x 7/16	3/8 x 1/2	7/16 x 9/16	1/2 x 1 1/16	1/2 x 3/4	5/8 x 7/8	3/4 x 1	7/8 x 1 1/8	.....	.....
Price.....each	.85	1.20	1.60	2.10	2.75	3.00	4.20	5.75	7.50	.....	.....

Bevel Rolled Steel, for Armstrong Cutting-Off Tools; Furnished in 3 Foot Bars.

Size.....inches	3/32 x 5/8	1/8 x 3/4	1/8 x 7/8	3/16 x 1	3/16 x 1 1/8	1/4 x 1 1/4	1/4 x 1 3/8
Price.....each	.75	.90	1.00	1.60	2.00	2.75	3.10

Self-Hardening Steel, for Hill Diamond Point and Eberhardt Tool Holders; Furnished in 3 Foot Bars.

Size.....square inches	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4
Price.....each	.50	.60	.85	1.20	1.50	1.85	2.85	4.75

Self-Hardening Steel Blades, for Hill Cutting-Off Tools.

Size.....inches	1/16 x 5/8	3/32 x 5/8	1/8 x 5/8	5/32 x 5/8	3/32 x 7/8	1/8 x 7/8	3/32 x 7/8	3/16 x 7/8	3/16 x 7/8	1/8 x 1
Price.....each	.40	.40	.40	.40	.55	.55	.55	.55	.55	.75

Size.....inches	3/16 x 1	1/4 x 1	1/8 x 1 1/4	5/16 x 1 1/4	1/4 x 1 1/2	1/8 x 1 1/2	3/16 x 1 1/2	1/16 x 1 1/2	1/4 x 1 1/2	1/16 x 1 1/2
Price.....each	.75	.75	1.00	1.00	1.00	1.25	1.25	1.25	1.25	1.25

Mushet Steel Cutters, for Woodbridge Lathe and Planer Tools.

Dimensions of Tool.....inches	1 1/8 x 1/2 x 6	1 3/8 x 1/4 x 6	1 1/2 x 3/4 x 8	2 x 1 x 8	2 1/4 x 1 x 8	2 3/4 x 1 1/4 x 10
Price.....each	.95	.95	1.20	3.40	3.40	7.60

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

KNURLING TOOLS.

PRATT AND WHITNEY, KNURLING TOOL.

FIG. 2529.

PRATT AND WHITNEY, KNURLING TOOL FOR SCREW MACHINE.

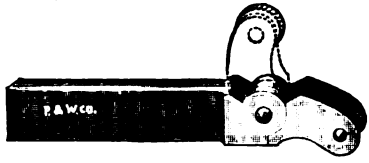

FIG. 2530.

Pratt and Whitney Knurling Tools.

Price, Holder only, 1 x ½ x 6 inches.....each	4.00
Price, with one pair of Knurls.....each	4.50
Price, Extra Knurls.....per pair	.75

Pratt and Whitney, Knurling Tools for Screw Machines.

Number	1	2	3
Shank.....inches	$2\frac{1}{8} \times \frac{9}{16} \times \frac{5}{16}$	$3\frac{1}{8} \times \frac{3}{4} \times \frac{3}{8}$	$3\frac{1}{8} \times \frac{7}{8} \times \frac{1}{2}$
Price.....each	4.50	4.50	4.50
Price, Extra Knurls.....each	.75	.75	.75

Knurls are furnished in three pitches, Fine, Medium and Coarse.

BILLING'S KNURLING TOOL.

FIG. 2531.

Billings Knurling Tools.

Price, Holder only, 1 x ½ x 6 inches.....each	4.25
Price, with one pair of Knurls.....each	5.00
Price, Extra Knurls.....per pair	.75

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LATHE DOGS.

Le Count. — Drop Forged.

BENT TAIL. STRAIGHT TAIL. BENT TAIL. STRAIGHT TAIL.

FIG. 2532.

FIG. 2533.

FIG. 2534.

FIG. 2535.

Le Count, Bent Tail.

Number	1	2	3	4	5	6	7	8	9	10	11	12
Size.....inches	⅜	½	⅝	¾	⅞	1	1⅛	1¼	1⅜	1½	1¾	2
Price.....each	.40	.50	.60	.60	.70	.70	.80	.80	.95	.95	1.10	1.20

Number..	13	14	15	16	17	18	19	20	21	22	23	.....
Size.....inches	2½	2½	3	3½	4	4½	5	5½	6	7	8	.....
Price .....each	1.35	1.45	1.60	1.80	2.10	2.75	3.25	4.00	5.00	6.00	7.00	.....

Le Count, Straight Tail.

Number.....	1	2	3	4	5	6	7	8	9	10
Size.....inches	¾	⅞	1	1⅛	1¼	1⅜	1½	1¾	2	2½
Price.....each	.60	.70	.70	.80	.80	.95	.95	1.10	1.20	1.35

Number.....	11	12	13	14	15	16	17	18	19	20
Size.....inches	2½	3	3½	4	4½	5	5½	6	7	8
Price..... each	1.45	1.60	1.80	2.10	2.75	3.25	4.00	5.00	6.00	7.00

Drop Forged, Bent Tail.

Number	1	2	3	4	5	6	7	8	9	10	11	12	13
Size.....inches	⅜	½	¾	1	1¼	1½	1¾	2	2½	3	3½	4	5
Price.....each	.40	.50	.60	.70	.85	1.00	1.20	1.40	1.70	2.10	2.60	3.30	6.00

Drop Forged, Straight Tail.

Number	21	22	23	24	25	26	27	28	29	30	31	32	33
Size.....inches	⅜	½	¾	1	1¼	1½	1¾	2	2½	3	3½	4	5
Price.. .....each	.40	.50	.60	.70	.85	1.00	1.20	1.40	1.70	2.10	2.60	3.30	6.00

Drop Forged Dogs with bent Tails can be furnished in sizes from ½ to 2 inches, for use on Milling Machines. They are designed for taper work carried between centers. The Flat Tail works in the head slot without the back lash unavoidable in dogs with taper tail. Furnished in sizes from ½ to 2 inch at prices same as Drop Forged Dogs.

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THE W. M. PATTISON SUPPLY CO. 943 CLEVELAND

CLAMP LATHE DOGS.

Le Count

MALLEABLE IRON.

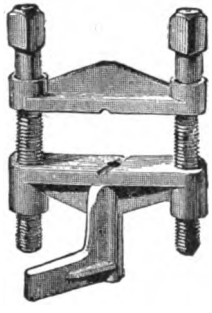

FIG. 2536.

STEEL.

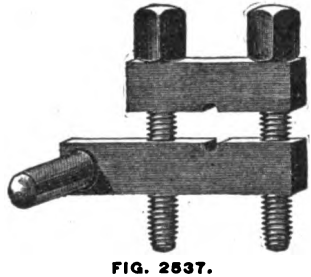

FIG. 2537.

DROP FORGED.

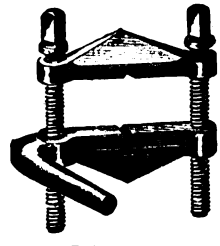

FIG. 2538.

Le Count, Malleable Iron.

Number	1	2	3	4
Opens.....inches	1	1½	2	3
Price.....each	1.00	1.10	1.30	1.60

Le Count, Steel.

Number	1	2	3	4
Opens.....inches	1	1½	2	3
Price.....each	1.25	1.50	1.75	2.00

Drop Forged.

Number	1	2	3
Opens.....inches	1¾	2¼	2¾
Price.....each	1.50	2.00	2.50

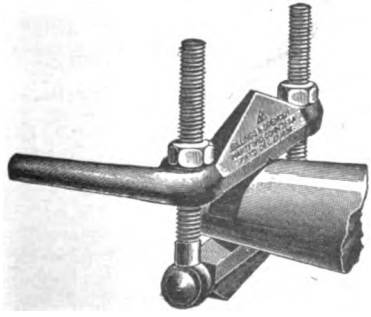

FIG. 2539.

Clamp Dog with Swivel Jaw, for Holding Taper Pieces.

Number	1	2	3
Opens.....inches	1¾	2¼	2¾
Price.....each	1.75	2.25	2.75

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STEEL CLAMPS.

LE COUNT, LIGHT.

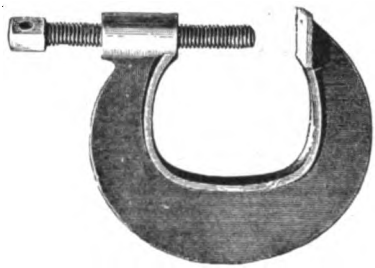

FIG. 2540.

LE COUNT, MECHANICS.

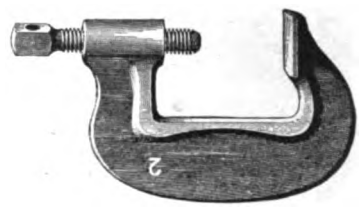

FIG. 2541.

Le Count, Light.

Price, No. 0 opens 2½ inches, runs back 2½ inches.....each	2.00
Price, No. 1 opens 4 inches, runs back 4½ inches.....each	4.00

Le Count, Mechanics: The Back is 1½ Inches from Center of Screw.

Number	1	2	3	4	5	6	7	8
Opens.....inches	2	3	4	5	6	7	8	9
Price.....each	1.25	1.50	1.75	2.00	2.25	2 50	2.75	3.00

LE COUNT, HEAVY.

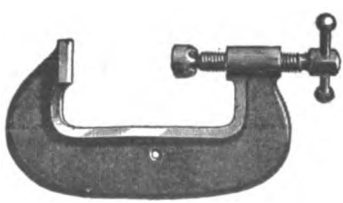

FIG. 2542.

BILLINGS, DROP FORGED.

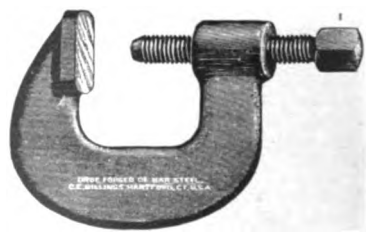

FIG. 2543.

Le Count, Heavy: The Back is 2½ Inches from Center of Screw.

Number	1	2	3	4	5	6	7	8	9	10	11
Opens..... inches	2	3	4	5	6	8	10	12	14	16	18
Price ....each	1.75	2.00	2.25	2.50	2.75	3.25	3.75	4.25	5.00	6.00	7.00

Billings, Drop Forged.

Number	1	2	3	4	5
Opens.....inches	1½	2½	3½	4½	6½
Price ....each	1.00	2.00	2.50	3.25	4.00

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STEEL CLAMPS.

MACHINIST'S.

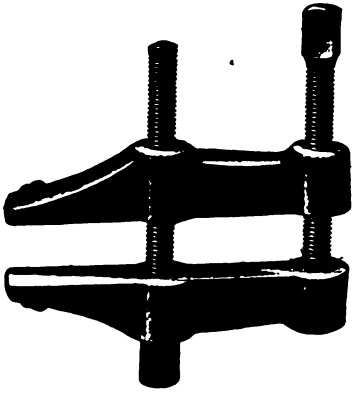

FIG. 2544.

PARALLEL.

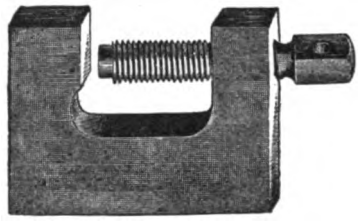

FIG. 2545.

Machinist's.

Number	1	2	3	4
Opens.....inches	1½	2½	3½	4½
Price.....each	1.50	2.00	2.50	3.00

Parallel.

Opens.....inches	1	1¼	1⅜	2	3	3 Ex. Heavy	4	4 Ex. Heavy	5	6
Price.....each	.75	1.00	1.25	1.75	2.00	2.75	3.00	4.00	5.00	6.00

MALLEABLE IRON SCREW CLAMP.

FIG. 2546.

WOOD HAND SCREW.

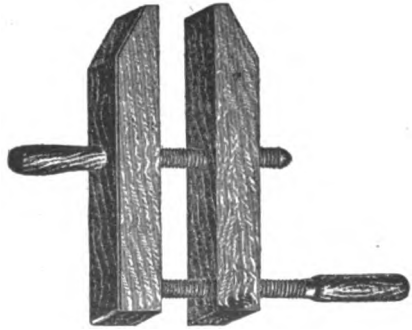

FIG. 2547.

Malleable Iron Screw Clamps.

Opens.....inches	3	4	5	6	7	8	9	10
Price.....per dozen	3.00	4.20	5.00	6.50	7.80	9.00	10.00	11.00

Wood Hand Screws.

Opens.....inches	1½	2	3	4½	5½	7½	8½	8½	10
Price.....per dozen	2.00	2.25	2.75	3.50	4.25	5.00	5.50	6.00	6.50

Opens.....inches	9½	11	10½	12½	12	13¾	15½	17	.....
Price.....per dozen	7.00	7.50	8.00	8.50	9.00	9.50	10.50	12.00	.....

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HARDENED AND GROUND STEEL MANDRELS.

FIG. 2548.

Diameter, Inches.	Length, Inches.	Price, Each.	Diameter, Inches.	Length, Inches.	Price, Each.
1/4	3 3/4	.65	2 3/16	12	6.00
5/16	4	.75	2 1/4	12	6.50
3/8	4 1/4	.85	2 5/16	12	6.90
7/16	4 1/2	.95	2 3/8	12	7.40
1/2	5	1.05	2 7/16	12 1/2	7.90
9/16	5 1/4	1.15	2 1/2	12 1/2	8.40
5/8	5 1/2	1.25	2 9/16	12 1/2	8.90
11/16	5 3/4	1.35	2 5/8	12 1/2	9.40
3/4	6	1.45	2 11/16	13	9.90
13/16	6 1/4	1.55	2 3/4	13	10.50
7/8	6 1/2	1.70	2 13/16	13	11.00
15/16	6 3/4	1.85	2 7/8	13	11.50
1	7	2.00	2 15/16	13	12.00
1 1/16	7 1/4	2.10	3	13	12.50
1 1/8	7 1/2	2.20	3 1/16	14	13.00
1 3/16	7 3/4	2.30	3 1/8	14	13.40
1 1/4	8	2.45	3 3/16	14	13.80
1 5/16	8 1/4	2.60	3 1/4	14	14.10
1 3/8	8 1/2	2.75	3 5/16	15	14.40
1 7/16	8 3/4	2.90	3 3/8	15	14.70
1 1/2	9	3.10	3 7/16	15	15.00
1 9/16	9 1/4	3.30	3 1/2	15	15.30
1 5/8	9 1/2	3.50	3 9/16	16	15.60
1 11/16	9 3/4	3.70	3 5/8	16	15.90
1 3/4	10	3.90	3 11/16	16	16.20
1 13/16	10 1/4	4.10	3 3/4	16	16.50
1 7/8	10 1/2	4.35	3 13/16	17	16.80
1 15/16	10 3/4	4.60	3 7/8	17	17.20
2	11	4.80	3 15/16	17	17.60
2 1/16	11 1/4	5.15	4	17	18.00
2 1/8	11 1/2	5.60	.....	.....	.....

Mandrels are made with slight taper and correct diameters for standard holes.

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THE W. M. PATTISON SUPPLY CO. 947 CLEVELAND

EXPANDING MANDRELS.

CHAMPION.

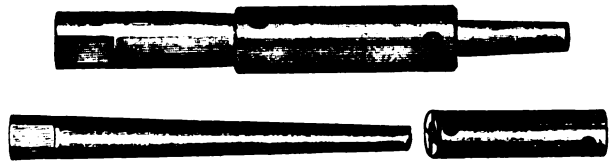

FIG. 2549.

Number.	Range, Inches.	Length of Arbor, Inches.	Length of Sleeve, Inches.	Price, Each.	Number.	Range, Each.	Length of Arbor, Inches.	Length of Sleeve. Inches.	Price, Each.
1	$\frac{1}{8}$ to $\frac{9}{16}$	6	$2\frac{1}{2}$	5.00	7	$1\frac{1}{4}$ to $1\frac{5}{8}$	$9\frac{1}{4}$	4	15.50
2	$\frac{5}{16}$ to $\frac{3}{4}$	$6\frac{1}{2}$	$2\frac{3}{4}$	5.50	8	$1\frac{1}{2}$ to 2	$11\frac{1}{2}$	5	17.50
3	$\frac{1}{2}$ to $\frac{7}{8}$	$6\frac{1}{2}$	$2\frac{3}{4}$	6.00	9	2 to $2\frac{3}{4}$	$14\frac{1}{2}$	$5\frac{1}{2}$	26.50
4	$\frac{3}{4}$ to 1	$7\frac{1}{2}$	$3\frac{1}{4}$	6.50	10	$2\frac{3}{4}$ to $3\frac{1}{4}$	17	6	37.50
5	$\frac{7}{8}$ to 1	$7\frac{1}{2}$	$3\frac{1}{4}$	7.50	11	$3\frac{1}{4}$ to 5	20	7	52.00
6	1 to $1\frac{3}{8}$	$9\frac{1}{4}$	4	13.50	12	5 to $6\frac{1}{2}$	24	8	68.50

All sizes from No. 1 to 5, inclusive, have one flexible sleeve only. All sizes from No. 6 upward have two flexible sleeves to obtain maximum expansion.

LE COUNT.

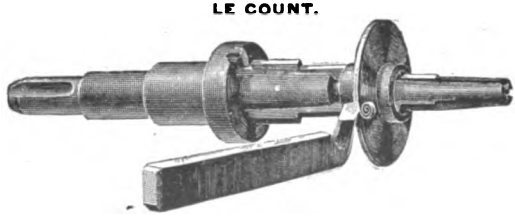

FIG. 2550.

Number.	Range, Inches.	Price, Each.	Number.	Range, Inches.	Price, Each.
1	$\frac{1}{2}$ to 1	10.00	4 with Screw	2 to 3	32.00
2	1 to $1\frac{1}{2}$	14.00	5 with Screw	3 to 4	44.00
3	$1\frac{1}{2}$ to 2	18.00	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

FLAT AND SPIRAL PUNCHES FOR RIVET WORK.

FIG. 2551.

Standard Dimensions.

Number.	Size of Rivet, Inches.	Size of Punch, Inches.	Size of Head on Punch, Inches.	FLAT PUNCHES. Length Over All, Inches.	FLAT PUNCHES. Price per Dozen.	SPIRAL PUNCHES. Length Over All, Inches.	SPIRAL PUNCHES. Price, Per Dozen.
2	3/16	.21	1 7/32	1 9/32	4.00	1 5/16	4.50
2	1/4	.28	1 7/32	1 9/32	4.00	1 5/16	4.50
2	5/16	.34	1 7/32	1 9/32	4.00	1 5/16	4.50
2	3/8	.41	1 7/32	1 9/32	4.00	1 5/16	4.50
2	7/16	.47	1 7/32	1 9/32	4.00	1 5/16	4.50
3	3/16	.21	2 3/32	1 5/16	4.50	1 9/16	5.50
3	1/4	.28	2 3/32	1 5/16	4.50	1 9/16	5.50
3	5/16	.34	2 3/32	1 5/16	4.50	1 9/16	5.50
3	3/8	.41	2 3/32	1 5/16	4.50	1 9/16	5.50
3	7/16	.47	2 3/32	1 5/16	4.50	1 9/16	5.50
3	1/2	.55	2 3/32	1 5/16	4.50	1 9/16	5.50
3	9/16	.62	2 3/32	1 5/16	4.50	1 9/16	5.50
4	3/8	.41	2 9/32	1 1/2	7.00	1 13/16	8.00
4	7/16	.47	2 9/32	1 1/2	7.00	1 13/16	8.00
4	1/2	.55	2 9/32	1 1/2	7.00	1 13/16	8.00
4	9/16	.62	2 9/32	1 1/2	7.00	1 13/16	8.00
4	5/8	.69	2 9/32	1 1/2	7.00	1 13/16	8.00
4	11/16	.74	2 9/32	1 1/2	7.00	1 13/16	8.00
4	3/4	.80	2 9/32	1 1/2	7.00	1 13/16	8.00
5	3/8	.55	1 5/32	1 5/16	10.00	2 1/16	12.00
5	7/16	.62	1 5/32	1 5/16	10.00	2 1/16	12.00
5	5/8	.69	1 5/32	1 5/16	10.00	2 1/16	12.00
5	11/16	.74	1 5/32	1 5/16	10.00	2 1/16	12.00
5	3/4	.80	1 5/32	1 5/16	10.00	2 1/16	12.00
5	13/16	.86	1 5/32	1 5/16	10.00	2 1/16	12.00
5	7/8	.94	1 5/32	1 5/16	10.00	2 1/16	12.00
5	1 1/16	1.00	1 5/32	1 5/16	10.00	2 1/16	12.00
5	1	1.06	1 5/32	1 5/16	10.00	2 1/16	12.00
6	5/8	.69	1 5/32	2 3/16	14.00	2 5/16	16.50
6	11/16	.74	1 5/32	2 3/16	14.00	2 5/16	16.50
6	3/4	.80	1 5/32	2 3/16	14.00	2 5/16	16.50
6	13/16	.86	1 5/32	2 3/16	14.00	2 5/16	16.50
6	7/8	.94	1 5/32	2 3/16	14.00	2 5/16	16.50
6	1 1/16	1.00	1 5/32	2 3/16	14.00	2 5/16	16.50
6	1	1.06	1 5/32	2 3/16	14.00	2 5/16	16.50
7	1 1/16	1.00	1 11/16	2 1/16	19.00	3	23.00
7	1	1.06	1 11/16	2 1/16	19.00	3	23.00

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FLAT AND SPIRAL PUNCHES, FRACTIONAL SIZES.

Number of Punch.	Size of Punch, Inches.	Size of Head on Punch, Inches.	FLAT PUNCH. Length Over All, Inches.	FLAT PUNCH. Price, Each.	SPIRAL PUNCH. Length Over All, Inches.	SPIRAL PUNCH. Price, Each.
2	$\frac{1}{8}$ to $\frac{3}{8}$	$\frac{7}{32}$	$1\frac{9}{32}$	.35	$1\frac{5}{16}$	38
3	$\frac{1}{8}$ to $\frac{9}{16}$	$\frac{3}{8}$	$1\frac{13}{32}$	.40	$1\frac{9}{16}$	.50
4	$\frac{1}{4}$ to $\frac{13}{16}$	$\frac{7}{32}$	$1\frac{1}{2}$	.60	$1\frac{5}{8}$	.70
5	$\frac{3}{8}$ to 1	$\frac{5}{32}$	$1\frac{5}{16}$	.90	$2\frac{1}{8}$	1.05
6	$\frac{1}{2}$ to $1\frac{1}{4}$	$\frac{3}{8}$	$2\frac{3}{8}$	1.20	$2\frac{5}{8}$	1.40
7	$\frac{3}{4}$ to $1\frac{9}{16}$	$1\frac{1}{16}$	$2\frac{1}{16}$	1.60	3	1.95
8	1 to $1\frac{3}{4}$	$2\frac{1}{16}$	....	2.50	$3\frac{3}{8}$	3.00
9	$1\frac{1}{2}$ to $2\frac{1}{4}$	$2\frac{9}{16}$	....	....	$3\frac{3}{8}$	4.00
10	2 to $2\frac{5}{8}$	$2\frac{13}{16}$	....	....	$3\frac{9}{2}$	9.00
11	$2\frac{1}{4}$ to $3\frac{1}{4}$	$3\frac{9}{32}$	....	....	$3\frac{5}{8}$	15.00
12	$3\frac{1}{4}$ to $4\frac{1}{8}$	$4\frac{1}{2}$	....	....	4	22.00

When ordered by the dozen, price will be the same as corresponding sizes on page 948.

Special length and diameters made to order.

STANDARD DIES.

FIG. 2562.

Number of Die.	OUTSIDE DIMENSIONS, INCHES. Diameter of Die.	OUTSIDE DIMENSIONS, INCHES. Thickness of Die.	Hole Diameters, Correct Size for Punches, Inches.	Price, Each.
2	$\frac{3}{4}$	$\frac{5}{8}$	From $\frac{1}{8}$ to $\frac{5}{16}$	.75
3	1	$\frac{5}{8}$	From $\frac{1}{8}$ to $\frac{9}{16}$	1.00
4	$1\frac{1}{2}$	1	From $\frac{1}{4}$ to $\frac{3}{4}$	1.50
5	2	1	From $\frac{1}{4}$ to 1	2.00
6	$2\frac{3}{8}$	$1\frac{1}{4}$	From $\frac{1}{8}$ to $1\frac{1}{4}$	2.50
7	$2\frac{7}{8}$	$1\frac{1}{4}$	From $\frac{3}{4}$ to $1\frac{9}{16}$	4.50

Other sizes made to order at special prices, which will be named upon application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CALIPERS.

FIRM JOINT.

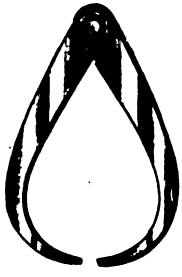

FIG. 2553.

No. 26.

SCREW ADJUSTING.

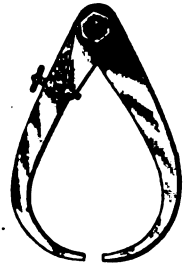

FIG. 2554.

No. 34.

LOCK JOINT.

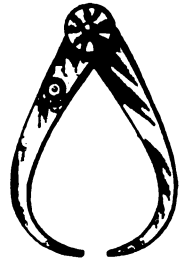

FIG. 2555.

No. 38.

LOCK JOINT, TRANSFER.

FIG. 2556.

No. 36.

FIRM JOINT.

FIG. 2557.

No. 27.

SCREW ADJUSTING.

FIG. 2558.

No. 35.

LOCK JOINT.

FIG. 2559.

No. 39.

LOCK JOINT, TRANSFER.

FIG. 2560.

No. 37.

HERMAPHRODITE.

FIG. 2561.

No. 41.

Length.....inches	3	4	5	6	8	10	12	14	16	18	20	24
Price, Nos. 26 and 27 .....each	.40	.50	.55	.65	.80	.90	1.00	1.50	1.75	2.10	2.50	3.00
Price, Nos. 34 and 35.....each	.....	.90	.....	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.50
Price, Nos. 38 and 39.....each	.....	.90	.95	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.50
Price, Nos. 36 and 37.....each	.....	1.25	1.40	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.50	4.25
Price, No. 41.....each	.....	.65	.....	.80	1.00	1.20	.....	.....	.....	.....	.....	.....
Price, No. 41, Solid Point...each	.40	.50	.55	.65	.80	.90	1.00	.....	.....	.....	.....	.....

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CALIPERS AND DIVIDERS.

REX SPRING.

FIG. 2562.
No. 1090.

SPRING.

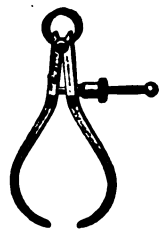

FIG. 2563.
No. 920.

THREAD SPRING.

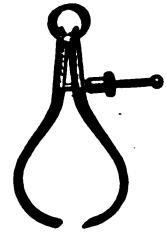

FIG. 2564.
No. 960.

KEYHOLE.

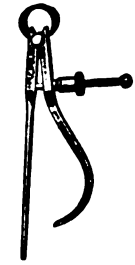

FIG. 2565.
No. 968.

REX SPRING.

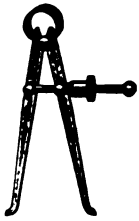

FIG. 2566.
No. 1104.

SPRING.

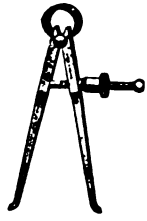

FIG. 2567.
No. 940.

REX DIVIDERS

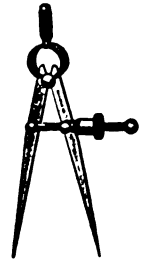

FIG. 2568.
No. 1118.

DIVIDERS.

FIG. 2569.
No. 948.

EXTENSION DIVIDERS.

FIG. 2570.
No. 85.

Size.....inches	2½	3	4	5	6	7	8	9
Price, Nos. 1090, 1104 and 1118 with Spring Nut ...each	.90	.95	1.00	1.05	1.10	.....	1.25	.....
Price, No. 920 with Spring Nut.....each	1.15	1.15	1.25	1.25	1.50	.....	.....	.....
Price, No. 960 with Spring Nut.....each	.....	1.15	1.25	1.25	.....	.....	.....	.....
Price, No. 968 with Spring Nut.....each	.....	1.15	1.25	.....	.....	.....	.....	.....
Price, No. 940 with Spring Nut.....each	.....	1.15	1.25	1.25	1.50	.....	.....	.....
Price, No. 948 with Spring Nut.....each	1.15	1.15	1.40	1.40	1.75	.....	.....	.....
Price, No. 85 with Divider Legs only.each	.....	.....	.....	.....	.....	1.25	.....	1.50
Price, No. 85 Complete .....each	.....	.....	.....	.....	.....	2.25	.....	2.50

If Nos. 1090, 1104 and 1118 are furnished with solid nut, deduct 25 cents each.

If Nos. 920, 960, 968, 940 and 948 are furnished with solid nut, deduct 15 cents each.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

MICROMETER CALIPERS.

English or Metric Measure.

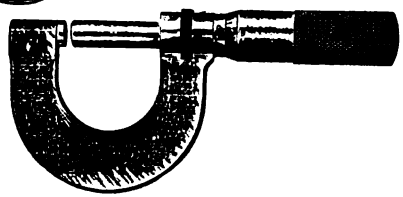

FIG. 2571.
No. 18.

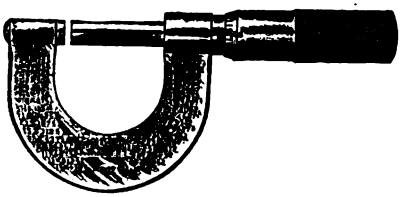

FIG. 2572.
No. 19.

FIG. 2573.
No. 4.

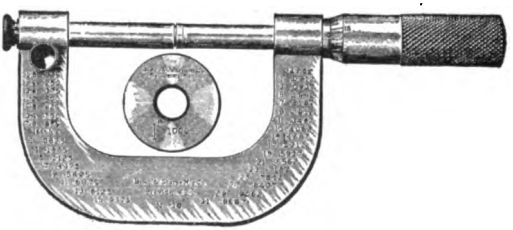

FIG. 2574.
No. 30.

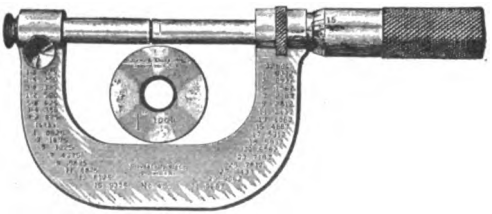

FIG. 2575.
No. 45.

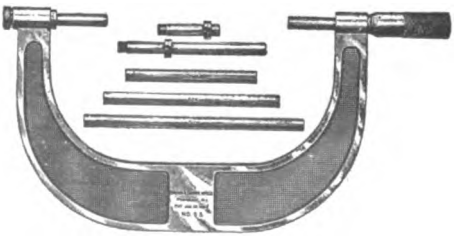

FIG. 2576.
No. 55.

For Prices, see page, 953.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

MICROMETER CALIPERS.

Number.	Measuring Sizes, Inches.	Price, Each.
1	For Sheet Metal.....Less than $\frac{3}{10}$ths by 1000ths.....	4.00
2	English or Metric.....Less than $\frac{1}{4}$ by 1000ths.....	4.50
3	.....Less than $\frac{1}{4}$ by 1000ths and 10000ths.....	5.50
4	English or Metric.....Less than $\frac{1}{2}$ by 1000ths.....	4.50
5	.....Less than $\frac{1}{2}$ by 1000ths and 10000ths.....	5.50
6	For Electrical Wires...All Sizes to 0000, B and S Gauge by 10ths of Mils.....	5.50
8	English or Metric.....Less than 1 inch by 1000ths.....	5.50
10	.....Less than 1 by 1000ths and 10000ths.....	6.50
14	For Tubings.....From $\frac{1}{16}$th inside diameter upward by 1000ths	4.50
15	English or Metric.....Less than 1 by 1000ths.....	5.00
16	.....Less than 1 by 1000ths and 10000ths.....	6.00
17	English or Metric.....Same as No. 15, but with Clamp Screw.....	5.50
18	.....Same as No. 17, Graduated by 1000ths and 10000ths.....	6.50
19	English or Metric.....Less than 1 by 1000ths.....	5.00
20	.....Same as No. 19, Graduated by 1000ths and 10000ths.....	6.00
21	.....Same as No. 20, but with Clamp Screw.....	6.50
22	.....Same as No. 19, but with Clamp Screw.....	5.50
23	For Plate Iron and Steel Less than 0000000 or approximately $\frac{1}{2}$ inch...	5.00
30	English or Metric.....Less than 2 by 1000ths.....	8.00
31	.....Same as No. 30, but with Clamp Screw.....	8.50
32	.....Same as No. 30, Graduated by 1000ths and 10000ths.....	9.00
33	.....Same as No. 32, but with Clamp Screw.....	9.50
38	.....Above 1 inch and less than 2 inches by 1000ths	6.00
39	.....Same as No. 38, but with Clamp Screw.....	6.50
40	.....Same as No. 38, Graduated by 1000ths and 10000ths.....	7.00
41	.....Same as No. 40, but with Clamp Screw.....	7.50
45	English or Metric.....Less than 2 by 1000ths, with Clamp Screw...	8.00
46	.....Same as No. 45, Graduated by 1000ths and 10000ths.....	9.00
47	English or Metric.....Above 1 and less than 2 by 1000ths, with Clamp Screw.....	6.00
48	.....Same as No. 47, Graduated by 1000ths and 10000ths.....	7.00
50	English or Metric.....Above 2 and less than 3 by 1000ths.....	7.00
52	.....Same as No. 50, but with Clamp Nut.....	7.50
55	English or Metric.....3 to 6 in length and 6 in diameter by 1000ths	14.00
57	English or Metric.....5 to 12 in length and 12 in diameter by 1000ths	30.00
60	English or Metric.....6 in length and 4 in diameter by 1000ths.....	30.00
64	English or Metric.....All sizes to 12 in length and 6 in diameter by 1000ths.....	35.00
68	English or Metric.....All sizes to 24 in length and 6 in diameter by 1000ths.....	45.00
70	Paper Gauge.....All sizes less than $\frac{3}{8}$ by 1000ths.....	5.50
72	Rolling Mill Gauge...Less than $\frac{1}{10}$ by half thousandths.....	7.00
127	U. S. Government.....0 to 4.....	25.00
127	U. S. Government.....4 to 8.....	37.00
127	U. S. Government.....8 to 12.....	50.00
128	Patent 6 inch ;.....All sizes to 4$\frac{1}{2}$ diameter and flat to 6.....	20.00

If Numbers 2 to 57 and Number 70 are furnished with Ratchet Stop, add 50 cents to list.

If Numbers 1 to 23 and Number 70 are furnished with Morocco Case, add 50 cents to list.

If Numbers 30 to 48 are furnished with Morocco Case, add 75 cents to list.

If Numbers 50 to 52 are furnished with Morocco Case add 1.00 to list.

If Number 55 is furnished with set of three Standards add 4.00 to list.

If Number 57 is furnished with set of six Standards add 10.00 to list.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 954

INSIDE MICROMETER GAUGES.

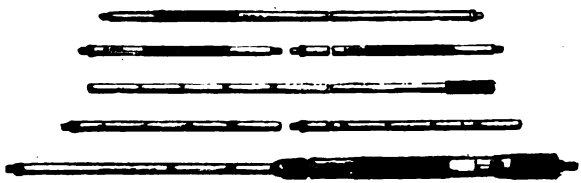

FIG. 2577.

Number	800	801	802
Range ....inches	2½ to 10	2½ to 13	8 to 32
Number of Rods	5	7	7
Price, Including Case....each	4.50	5.50	7.00

These Gauges consist of a holder with a micrometer screw and thimble graduated to read to .001 inches.

MICROMETER CALIPER GAUGES WITH ATTACHMENTS.

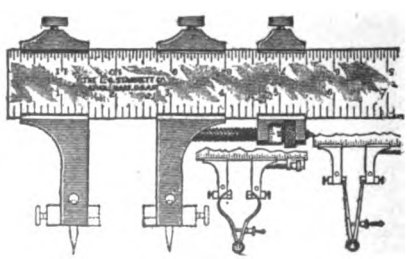

FIG. 2578.

Size ....inches	12	18	24	36
Price....each	11.00	12.50	14.00	25.00

This Gauge is made to fit scales 1¼ inch wide, .085 thick and 12, 18, 24 and 36 inches long. The head of the gauge carries Auxiliary Tram Points. Attachments are also made to slip on and off the ends of the Caliper so that they may be used for making close or drive fits. Both inside and outside Calipers may be set to exactly agree with each other. For measuring distances the gauge may not only be set by the graduated scale but varied by the micrometer adjusting nut to read additional thousandths.

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THE W. M. PATTISON SUPPLY CO. 955 CLEVELAND

VERNIER CALIPERS.

POCKET SIZE.

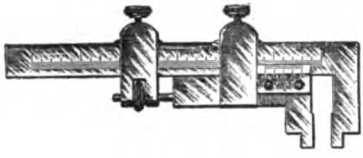

FIG. 2579.

FIG. 2580.

Number	680	682	686	688
Size ..... inches	Pocket	6	12	24
Length of Jaws ..... inches	3/4	1 1/2	2 1/4	1 3/4
Width of Jaws when closed ..... inches	1/4	1/4	3/16	3/16
Price, Including Morocco Case ..... each	10.50	15.00	20.00	25.00

CALIPER RULES.

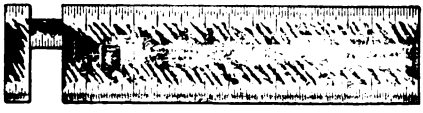

FIG. 2581.

CALIPER SQUARES.

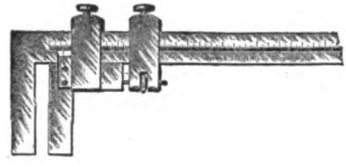

FIG. 2582.

Caliper Rules and Squares.

Number	360	361	700	702	704	706
Size ..... inches	3	4	2	4	6	9
Length of Jaws ..... inches	.....	.....	3/4	1 1/2	2	3 1/4
Width of Jaws closed ..... inches	.....	.....	.....	1/2	1	1
Price, Rules ..... each	2.00	2.50	.....	.....	.....	.....
Price, Squares, Without Adjusting Screw ..... each	.....	.....	2.25	3.50	5.50	9.00
Price, Squares, with Adjusting Screw ... each	.....	.....	3.50	4.50	7.50	11.00

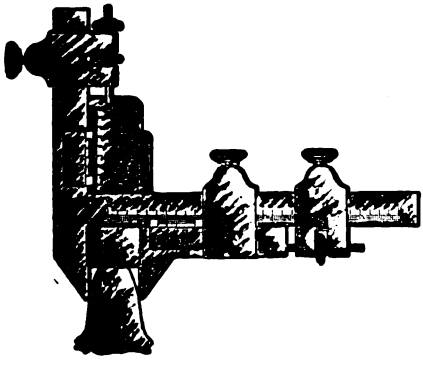

FIG. 2583.

Gear Tooth Caliper.

This Caliper accurately measures the distance from top to pitch line and thickness at pitch line of gear teeth. It will measure all pitches from 20 diametral to 2 diametral. The sliding jaw moves upon a bar graduated to read by means of a Vernier to thousandths of an inch; a tongue moving at right angles with the jaws is graduated in the same manner. Both the sliding jaw and tongue are provided with adjusting screws.

Price ..... each	25.00

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THE W. M. PATTISON SUPPLY CO. 956 CLEVELAND

SINGLE END. GAUGES.

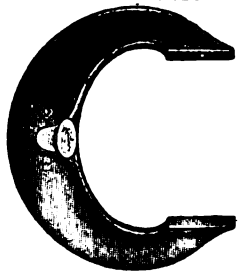

FIG. 2584.

DOUBLE END.

FIG. 2585

Unfinished Drop Forged Gauges.

Number.	Capacity, Inches.	DIMENSIONS, OVER ALL. Length, Inches.	Width, Inches.	DIMENSIONS OF MEASURING PAD. Length, Inches.	Width, Inches.	Price, Double End, Each.	Price, Single End, Each.
2	1/4 to 3/8	2 1/8	1 5/16	7/16	1 5/16	.20	.....
4	3/8 to 1/2	2 1/8	1 1/8	1/2	1/4	.22	.....
6	1/2 to 3/4	3 1/8	1 9/16	19/32	9/32	.25	.....
8	3/4 to 1	3 5/8	1 15/16	21/32	5/16	.30	.....
10	1 to 1 1/4	4 3/8	2 3/8	3/4	11/32	.39	.....
12	1 1/4 to 1 1/2	5	2 3/4	27/32	3/8	.53	.....
14	1 1/2 to 1 3/4	5 9/16	3 1/16	15/16	13/32	.72	.....
16	1 3/4 to 2	6 5/16	3 1/2	1	7/16	.96	.....
18	2 to 2 1/2	7 1/4	4 5/16	1 5/32	15/32	1.25	.....
20	2 1/2 to 3	8 9/16	5 1/8	1 11/32	1/2	1.60	.....
22	3 to 3 1/2	5 1/8	5 3/4	1 1/2	1/2	.....	1.05
24	3 1/2 to 4	5 11/16	6 1/2	1 7/8	17/32	.....	1.35

Drop Forged Steel Caliper Gauges, Hardened and Ground to Standard Size.

Size, Inches.	Price, Each.	Size, Inches.	Price, Each.	Size, Inches.	Price, Each.	Size, Inches.	Price, Each.
1/4	2.00	1 1/4	2.80	2 3/16	3.55	3 1/8	4.30
5/16	2.05	1 5/16	2.85	2 1/4	3.60	3 3/16	4.35
3/8	2.10	1 3/8	2.90	2 5/16	3.65	3 1/4	4.40
7/16	2.15	1 7/16	2.95	2 3/8	3.70	3 5/16	4.45
1/2	2.20	1 1/2	3.00	2 7/16	3.75	3 3/8	4.50
9/16	2.25	1 9/16	3.05	2 1/2	3.80	3 7/16	4.55
5/8	2.30	1 5/8	3.10	2 9/16	3.85	3 1/2	4.60
11/16	2.35	1 11/16	3.15	2 5/8	3.90	3 9/16	4.65
3/4	2.40	1 3/4	3.20	2 11/16	3.95	3 5/8	4.70
13/16	2.45	1 13/16	3.25	2 3/4	4.00	3 11/16	4.75
7/8	2.50	1 7/8	3.30	2 13/16	4.05	3 3/4	4.80
15/16	2.55	1 15/16	3.35	2 7/8	4.10	3 13/16	4.85
1	2.60	2	3.40	2 15/16	4.15	3 7/8	4.90
1 1/16	2.65	2 1/16	3.45	3	4.20	3 15/16	4.95
1 1/8	2.70	2 1/8	3.50	3 1/16	4.25	4	5.00
1 3/16	2.75	.....	.....	.....	.....	.....	.....

Sets, varying by sixteenths, 1/4 to 2 inches, inclusive	76.50
Sets, varying by sixteenths, 1/4 to 2 inches, inclusive, and 2 1/8 to 2 1/2 inches, inclusive, varying by eighths	90.00
Sets, varying by sixteenths, 1/4 to 2 1/2 inches, inclusive	103.50
Complete sets, varying by sixteenths, 1/4 to 3 inches, inclusive, and 3 1/8 to 4 inches, inc., varying by eighths	170.00

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THE W. M. PATTISON SUPPLY CO. 957 CLEVELAND

HAND FORGED STEEL CALIPER GAUGES.

Parallel Jaws, Hardened and Ground to Standard Size.

Size, Inches.	Price, Each.	Size, Inches.	Price, Each.	Size, Inches.	Price, Each.	Size, Inches.	Price, Each.
4 1/16	11.50	4 3/8	12.75	4 1/8	14.00	5	15.25
4 1/8	11.75	4 7/16	13.00	4 1/4	14.25	5 1/16	15.50
4 3/16	12.00	4 1/2	13.25	4 3/8	14.50	5 1/8	15.75
4 1/4	12.25	4 9/16	13.50	4 7/16	14.75	5 3/16	16.00
4 5/16	12.50	4 5/8	13.75	4 1/2	15.00	5 1/4	16.25

U. S. STANDARD THREAD GAUGES.

EXTERNAL AND INTERNAL.

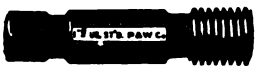

FIG. 2586.

Hardened and Not Ground in the Angle of the Thread.

Size, Inches.	Price, Each.	Size, Inches.	Price, Each.	Size, Inches.	Price, Each.
1/4	7.50	7/8	11.50	2	21.00
5/16	7.50	1 1/8	11.50	2 1/8	23.00
3/8	8.00	1	12.50	2 1/4	25.00
7/16	8.00	1 1/8	13.50	2 3/8	27.00
1/2	8.50	1 1/4	14.50	2 1/2	29.00
9/16	8.50	1 3/8	15.50	2 5/8	31.00
5/8	9.50	1 1/2	16.25	2 3/4	33.50
11/16	9.50	1 5/8	17.25	2 7/8	36.00
3/4	10.50	1 3/4	18.25	3	38.50
13/16	10.50	1 7/8	19.50	.....	.....

Sizes above 3 inches and special thread gauges, U. S. form of thread, made to order, at prices which will be quoted on application.

Left-hand U. S. Thread gauges, 25 per cent. advance on corresponding list prices.

Hardened and Ground in the Angle of the Thread.

Size, Inches.	Price, Each.	Size, Inches.	Price, Each.	Size, Inches.	Price, Each.
1/4	11.25	7/8	17.25	2	31.50
5/16	11.25	1 1/8	17.25	2 1/8	34.50
3/8	12.00	1	18.75	2 1/4	37.50
7/16	12.00	1 1/8	20.25	2 3/8	40.50
1/2	12.75	1 1/4	21.75	2 1/2	43.50
9/16	12.75	1 3/8	23.25	2 5/8	46.50
5/8	14.25	1 1/2	24.50	2 3/4	50.25
11/16	14.25	1 5/8	25.75	2 7/8	54.00
3/4	15.75	1 3/4	26.50	3	57.75
13/16	15.75	1 7/8	29.25	.....	.....

Sizes above 3 inches made to order. Gauges for special threads, U. S. form, of this degree of precision, made to order. Prices quoted on application.

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THE W. M. PATTISON SUPPLY CO. 958 CLEVELAND

GAUGES.

U. S. STANDARD REFERENCE THREAD GAUGE.

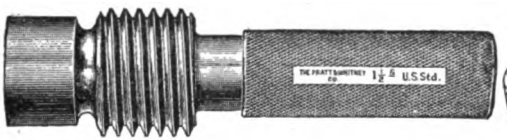

FIG. 2587.

BRIGG'S STANDARD PIPE THREAD REFERENCE GAUGE.

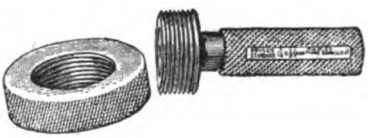

FIG. 2588.

U. S. Standard Reference Thread Gauge, Unhardened Tool Steel.

Size, Inches.	Price, Each.	Size, Inches.	Price, Each.	Size, Inches.	Price, Each.
1/4	7.50	7/8	11.50	2	21.00
5/16	7.50	15/16	11.50	2 1/8	23.00
3/8	8.00	1	12.50	2 1/4	25.00
7/16	8.00	1 1/8	13.50	2 3/8	27.00
1/2	8.50	1 1/4	14.50	2 1/2	29.00
9/16	8.50	1 3/8	15.50	2 5/8	31.00
5/8	9.50	1 1/2	16.25	2 3/4	33.50
11/16	9.50	1 5/8	17.25	2 7/8	36.00
3/4	10.50	1 3/4	18.25	3	38.50
13/16	10.50	1 7/8	19.50	.....	.....

Sizes above 3 inches, and special thread gauges, made to order, at prices quoted on application. Sent securely packed in finished cherry cases, especially made for them, in sets or separately, as per above list. Discount for sets quoted on application.

Brigg's Standard Pipe Thread, Unhardened Steel Reference Gauges.

Size, Inches.	Price, (Plugs and Templets).	Size, Inches.	Price, (Plugs and Templets).	Size, Inches.	Price, (Plugs and Templets).
1/8	6.50	2	19.00	6	36.00
1/4	8.00	2 1/2	20.75	7	39.50
3/8	9.50	3	22.50	8	43.00
1/2	11.25	3 1/2	25.00	9	46.50
3/4	12.75	4	27.00	10	50.00
1	14.25	4 1/2	30.00	11	55.00
1 1/4	16.00	5	32.50	12	60.00
1 1/2	17.50	.....	.....	.....	.....

Brigg's Left Hand, Standard Pipe Thread, Hardened Steel Plug Gauges.

Size, Inches.	Price, Plugs only Each.	Size, Inches.	Price, Plugs only Each.
1/8	4.50	3/4	8.50
1/4	5.50	1	9.50
3/8	6.50	1 1/4	10.75
1/2	7.50	1 1/2	11.25

Sets of Brigg's Standard Pipe Thread Gauges, External and Internal, Unhardened Steel.

Size.....inches	1/8 to 2	1/8 to 3	1/8 to 6	1/8 to 8	1/8 to 12
Price.....each	110.00	150.00	300.00	380.00	585.00

Price of hardened gauges, plugs, only, singly or in sets, 33 1/3 per cent. discount from price of both unhardened plugs and templets.

Sets in hardened plugs, with unhardened templets, 15 per cent. advance on list above given.

Standard oil well casing gauges, 1 1/2 to 8 1/4 inches diameter, taper 3/8 inch per foot, made to order

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THE W. M. PATTISON SUPPLY CO. 959 CLEVELAND

STANDARD CYLINDRICAL SIZE GAUGES, PLUGS AND TEMPLETS.

HARDENED AND GROUND.

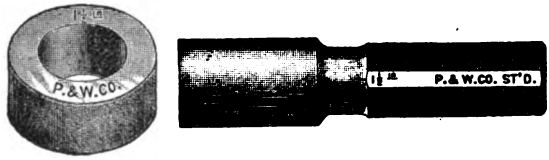

FIG. 2589.

Size, Inches.	Price, Each.	Size, Inches.	Price, Each.	Size, Inches.	Price, Each.	Size, Inches.	Price, Each.
1/16	5.50	13/16	8.40	1 9/16	14.25	2 5/16	20.25
1/8	5.50	7/8	8.80	1 5/8	14.75	2 3/8	20.75
3/16	5.50	15/16	9.25	1 11/16	15.25	2 7/16	21.25
1/4	5.75	1	9.75	1 3/4	15.75	2 1/2	21.75
5/16	6.00	1 1/16	10.25	1 13/16	16.25	2 9/16	22.25
3/8	6.25	1 1/8	10.75	1 7/8	16.75	2 5/8	22.75
7/16	6.50	1 3/16	11.25	1 15/16	17.25	2 11/16	23.25
1/2	7.00	1 1/4	11.75	2	17.75	2 3/4	23.75
9/16	7.25	1 5/16	12.25	2 1/16	18.25	2 13/16	24.25
5/8	7.50	1 3/8	12.75	2 1/8	18.75	2 7/8	24.75
11/16	7.75	1 7/16	13.25	2 3/16	19.25	2 15/16	25.25
3/4	8.00	1 1/2	13.75	2 1/4	19.75	3	25.75

Prices for special cylindrical gauges, sizes above 3 inches, and for regular sizes in sets, in English or Metric standards, quoted on application. Standard or special sets sent securely packed in finished cherry cases, made specially for them. Regular sets are 1/16 inch to 2 inches by sixteenths, and 2 1/8 inches to 3 inches by eighths, inclusive, plugs and templets. Plug gauges or templets separately at one-half above list prices.

DOUBLE END LIMIT GAUGES.

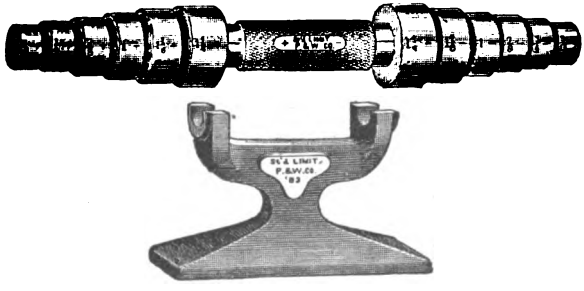

FIG. 2590.

	By 16ths.	By 8ths.
Size.....inches	1/4 to 1 5/16	5/8 to 1 1/4
Price, 6 Double Sizes.....per set	30.00	33.00
Price, 6 Double Sizes without Calipers.....each	10.00	11.00

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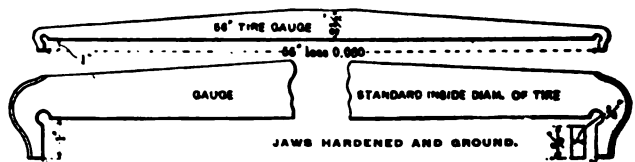
STANDARD LOCOMOTIVE WHEEL-CENTER AND TIRE GAUGES.

Adopted by the American Railway Master Mechanics Association.

38″	
44″	
50″	
56″	
62″	
66″	
	6″



38″ less	0.040
44″ less	0.047
50″ less	0.053
56″ less	0.060
62″ less	0.066
66″ less	0.070

FIG. 2591.

Price of set of six pairs standard reference gauges, for outside and inside measurement, complete in finished cherry case, with lock and key.....	125.00
For parts of set, in pairs, or for a single pair.....per pair	26.00
Cherry case for parts of set, extra, 5.00 to.....	7.50

We are prepared to furnish the following gauges:

Automatic Coupler and New Knuckle Gauges.
Adopted by the Master Car Builders Association.

Worn Coupler Gauges.
Adopted by the Master Car Builders Association.

Car Wheel Circumference Gauges.
Master Car Builders Standard.

Standard Wheel Defect and Master Mechanics Decimal Gauges.
American Railway Master Mechanics Association Standard.

Prices and information on application.

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THE W. M. PATTISON SUPPLY CO. 961 CLEVELAND

SURFACE GAUGES.

IMPROVED.

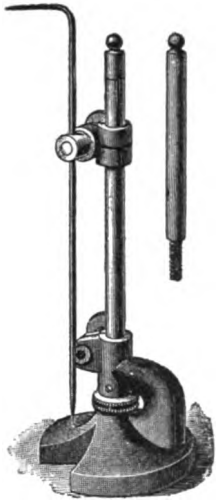

FIG. 2592.

No. 52.

MICROMETER.

FIG. 2593.

No. 53.

Size	inches	8	12
Price, Improved	each	2.00	2.75
Price, Improved with 6 inch extension	each	.....	3.75
Price, Micrometer	each	2.50	3.50
Price, Micrometer with 6 inch extension	each	.....	4.00

TOOL MAKERS UNIVERSAL SURFACE GAUGE.

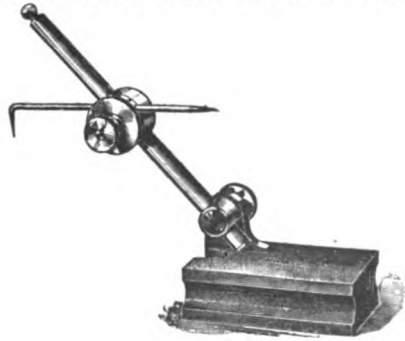

FIG. 2594.

Price	2.50

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THE W. M. PATTISON SUPPLY CO. 962 CLEVELAND

DEPTH GAUGES.

6-INCH RULE

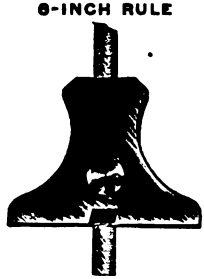

FIG. 2595.

Head $\frac{1}{8}$ inch thick; 2 inches long.
Blade 6 inches long; $\frac{7}{32}$ inch wide.

Price..... ....each	1.25

SPRING.

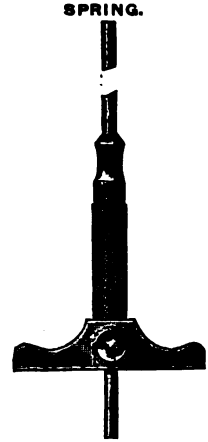

FIG. 2596.

Base 2 inches long; $\frac{7}{16}$ inch wide.
Rod 6 inches long; $\frac{1}{8}$ inch diameter.

Price..... ..... each	1.50

MICROMETER.

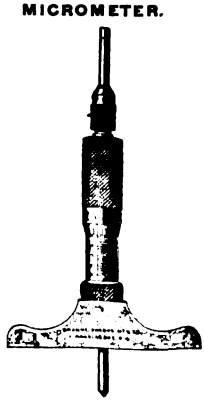

FIG. 2597.

Head 2 inches long; $\frac{7}{16}$ inch thick.
Measures to 2½ inches by 1000ths.
Gauge Screw movement, ½ inch.

Price .....each	4.50	Morocco Case	.50

MICROMETER.

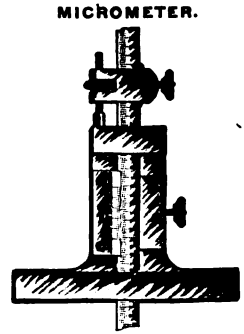

FIG. 2598.

Blade 5 inches long; ¼ inch wide.
Measures to 3½ inches by 1000ths.
Front reads by means of Vernier.
Back is graduated to 64ths.

Price, including case.....each	10.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 963

SCREW PITCH AND CENTER GAUGES.

22 PITCHES, INCLUDING PIPE THREAD PITCHES.

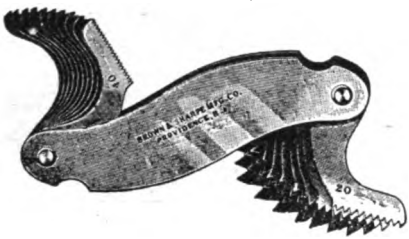

FIG. 2599.

No. 20.

22 PITCHES

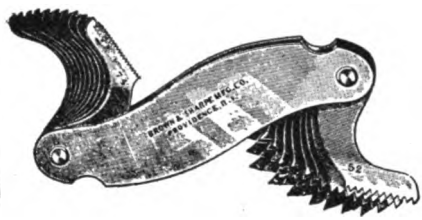

FIG. 2600.

No. 22

25 PITCHES.

FIG. 2601.

No. 767.

Number 20.

Pitches, one end	9	10	11	11½	12	13	14	15	16	18	20
Pitches, other end	22	24	26	27	28	30	32	34	36	38	40
Price ..... each	1.00										

Number 22.

Pitches, one end	32	34	36	38	40	42	44	46	48	50	52
Pitches, other end	54	56	58	60	62	64	66	68	70	72	74
Price .. .. each	1.00										

Number 767.

Pitches, one end	2½	2⅜	2½	2⅝	2¾	2⅞	3	3¼	3½	4	4½	5	.....
Pitches, other end	5½	6	7	8	9	10	11	12	13	14	16	18	20
Price ..... each	1.50												

Number 767, also contains a blade with a gauge for grinding Thread Tools.

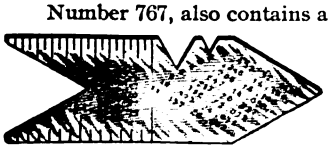

FIG. 2602.

Center Gauges.

AND GAUGES FOR GRINDING AND SETTING SCREW CUTTING TOOLS WITH TABLE FOR DETERMINING THE SIZE OF TAP DRILLS FOR 60° V AND U. S. STANDARD THREADS.

Price ..... each	.25	Price, Tempered ..... each	.35

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TWIST DRILL AND STEEL WIRE GAUGES.

DRILL AND TAP DRILL GAUGE CHART FOR MACHINE SCREW TAPS.

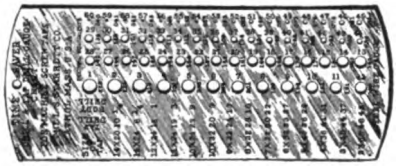

FIG. 2603.

Price.....each	1.75

TWIST DRILL GAUGE AND DECIMAL EQUIVALENTS.

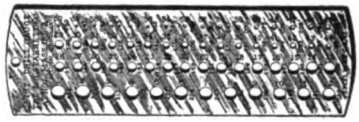

FIG. 2604.

Price.....each	1.50

TWIST DRILL GAUGE, NUMBERS 1 TO 60.

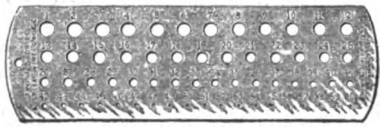

FIG. 2605.

Price.....each	1.50

TWIST DRILL GAUGE, NUMBER 61 TO 80.

FIG. 2606.

Price.....each	2.00

JOBBER'S TWIST DRILL GAUGE.

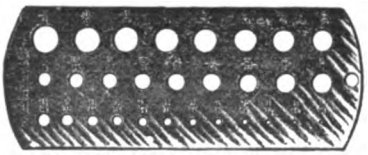

FIG. 2607.

Price.....each	2.25

POCKET SCREW AND WIRE GAUGE.

FIG. 2608.

Price.....each	2.50

LARGE SCREW AND WIRE GAUGE.

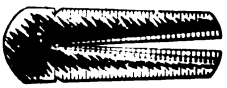

FIG. 2609.

Price.....each	3.50
Price, Extra Thick.....each	4.50

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WIRE AND SHEET METAL GAUGES.

AMERICAN STANDARD WIRE GAUGE

FIG. 2610.

Price, Sizes 5 to 36.....each	2.00	
Price, Sizes 0 to 36.....each	2.50	

ENGLISH STANDARD WIRE GAUGE.

FIG. 2611.

Price, Sizes 6 to 36.....each	1.50	
Price, Sizes 1 to 36.....each	2.00	

U. S. STANDARD GAUGE FOR SHEET AND PLATE METALS.

FIG. 2612.

Price, Sizes 0 to 36..... each	2.50	

ROLLING MILL GAUGES.

ENGLISH BIRMINGHAM STANDARD.

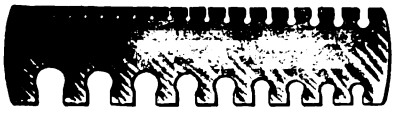

FIG. 2613.

Price, Sizes 000 to 25.....each	2.50	
Price, Sizes 1 to 32.....each	3.00	

U. S. STANDARD.

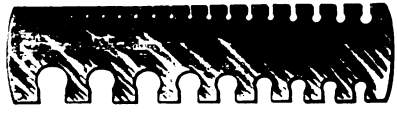

FIG. 2614.

Price, Sizes 000 to 25.....each	2.50	
.....	.....	

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THE W. M. PATTISON SUPPLY CO. 966 CLEVELAND

STEEL RULES.

STANDARD.

FIG. 2615.

Number.	Length Inches.	Width, Inches.	Number of Graduations.	Price, Each.
100	1	7/16	.....4 or 7	.15
102	2	1/2	..... 4, 7 or 9	.25
104	3	1/2	1, 2, 4, 6 or 7	.35
106	4	1/2	1, 2, 4, 6 or 7	.45
108	6	1	1, 2, 4, 6 or 7	.65
110	9	1	1, 2, 4, 6 or 7	1.00
112	12	1	1, 2, 4, 6 or 7	1.25

STANDARD, END GRADUATIONS.

FIG. 2616.

Number.	Length Inches.	Width, Inches.	Number of Graduations.	Price, Each.
114	12	1 1/4	5	2.50
116	18	1 1/4	1, 2, 4, 6 or 7	2.00
118	24	1 1/4	1, 2, 4, 6 or 7	2.75
120	24	1 1/2	5	5.00
122	36	2 1/2	1, 2, 4, 6 or 7	5.00
124	48	3	1, 2, 4, 6 or 7	8.00

TEMPERED.

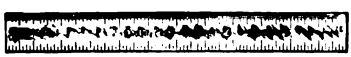

FIG. 2617

Number.	Length Inches.	Width, Inches.	Number of Graduations.	Price, Each.
136	1	29/64	.....4 or 7	.15
137	2	1/2	..... 4, 7 or 9	.25
138	3	35/64	1, 2, 4, 6 or 7	.35
139	4	19/32	1, 2, 4, 6 or 7	.45
140	6	11/16	1, 2, 4, 6 or 7	.65

TEMPERED, END GRADUATIONS.

FIG. 2618.

Number.	Length Inches.	Width, Inches.	Number of Graduations.	Price, Each.
141	9	53/64	1, 2, 4, 6 or 7	1.00
142	12	31/32	1, 2, 4, 6 or 7	1.25
143	18	1	1, 2, 4, 6 or 7	2.00
144	24	1	1, 2, 4, 6 or 7	2.75
145	36	1	1, 2, 4, 6 or 7	5.00

FLEXIBLE, TEMPERED.

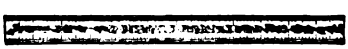

FIG. 2619.

NARROW.

FIG. 2620.

Flexible, Tempered.

Narrow.

Number.	Length Inches.	Width, Inches.	Number of Graduations.	Price, Each.	Number.	Length Inches.	Width, Inches.	Number of Graduations.	Price, Not Tempered, Each.	Price, Tempered, Each.
149	4	1/2	10, 11, 12, 13 or 14	.45	130	6	11/16	....1, 2, 4, 6 or 7	.65	.....
150	6	1/2	10, 11, 12, 13 or 14	.65	157	4	3/4	..... 10, 11 or 12	.....	.45
151	9	1/2	10, 11, 12, 13 or 14	1.00	158	6	3/4	..... 10, 11 or 12	.....	.65
152	12	1/2	10, 11, 12, 13 or 14	1.25	159	9	.....	..... 10, 11 or 12	.....	1.00
153	18	1/2	10, 11, 12, 13 or 14	2.00	159 A	12	.....	..... 10, 11 or 12	.....	1.25
154	24	1/2	10, 11, 12, 13 or 14	2.75	.....	.....	.....	.....	.....	.....
155	36	1/2	10, 11, 12, 13 or 14	5.00	.....	.....	.....	.....	.....	.....

☞ For list of Graduations see page 968.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEEL RULES.

SQUARE.

FIG. 2621.

Square.

Number.	Length Inches.	Number of Graduations.	Price, Each.
230	3	.....15, 16 or 17	.45
232	4	.....15, 16 or 17	.60
234	6	.....15, 16 or 17	.90
.....	.. ..	.....	.....

TRIANGULAR.

FIG. 2622.

Triangular.

Number.	Length Inches.	Number of Graduations.	Price, Each.
240	3	.....20, 21 or 22	.50
242	4	.....20, 21 or 22	.70
244	6	.....20, 21 or 22	1.00
246	12	.....20, 21 or 22	2.00

KEY SEAT.

FIG. 2623.

Key Seat.

Number.	Length, Inches.	Price, Each.
254	4	2.50
256	6	3.00
258	8	3.75
.....	.....	.....8..
.....	.....	.....
.....	.....	.....
.....	.....	.....

TEMPERED, SHRINK.

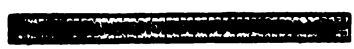

FIG. 2624.

Tempered, Shrink.

Number	Length, Inch	Shrink, Per Foot.	Number of Graduations.	Price, Each.
201	12	$\frac{1}{32}$	4	1.75
211	12	$\frac{1}{16}$	2	1.75
212	24	$\frac{1}{16}$	4	3.50
213	24	$\frac{1}{8}$	2	3.50
214	12	$\frac{1}{8}$	4	1.75
221	24	$\frac{1}{8}$	4	3.50
203	12	$\frac{3}{16}$	4	1.75

Number.	Length, Inches.	Shrink, Per Foot.	Number of Graduations.	Price, Each.
222	12	$\frac{3}{16}$	2	1.75
223	24	$\frac{3}{16}$	4	3.50
224	24	$\frac{3}{16}$	2	3.50
204	12	$\frac{1}{4}$	4	1.75
225	12	$\frac{1}{4}$	2	1.75
226	24	$\frac{1}{4}$	4	3.50
227	24	$\frac{1}{4}$	2	3.50

STANDARD STRAIGHT EDGE.

FIG. 2625.

Standard.

Number.	Length Inches.	Width, Inches.	Thickness, Inches.	Price, Each.
370	6	1	$\frac{3}{64}$	.60
372	9	$1\frac{1}{4}$	$\frac{3}{64}$	.90
374	12	$1\frac{1}{4}$	$\frac{3}{64}$	1.25
376	18	$1\frac{1}{2}$	$\frac{3}{64}$	2.00
378	24	2	$\frac{3}{64}$	2.75
380	36	$2\frac{3}{8}$	$\frac{3}{64}$	5.00
382	48	3	$\frac{3}{64}$	8.00
384	60	3	$\frac{1}{8}$	12.00
386	72	3	$\frac{1}{8}$	16.00

BEVELED STRAIGHT EDGE.

FIG. 2626.

Beveled.

Number.	Length Inches.	Width, Inches.	Thickness, Inches.	Price, Each.
400	12	$1\frac{1}{4}$	$\frac{3}{64}$	1.50
402	18	$1\frac{1}{4}$	$\frac{3}{64}$	2.50
404	24	2	$\frac{1}{8}$	3.50
406	36	3	$\frac{1}{8}$	6.00
408	48	3	$\frac{1}{8}$	10.00
410	60	3	$\frac{1}{8}$	15.00
412	72	$3\frac{1}{8}$	$\frac{1}{8}$	20.00
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

☞For List of Graduations see Page 968.

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THE W. M. PATTISON SUPPLY CO. 968 CLEVELAND

TRIANGULAR SCALES.

METALLIC.

FIG. 2627.

BOXWOOD.

FIG. 2628.

Price, 12 inch Triangular Metallic Scales, graduated $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, 1, $1\frac{1}{2}$, 2, 3, and 4 inches to the foot and 16ths of an inch or; $\frac{3}{16}$, $\frac{3}{32}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{5}{4}$, $\frac{1}{2}$, 1, $1\frac{1}{2}$ and 3 inches to the foot, also $\frac{1}{16}$ inches or divided on one edge each to 10ths, 20ths, 30ths, 40ths, 50ths and 60ths or, 20ths, 30ths, 40ths, 50ths, 60ths and 80ths.....each	2.50
Price, 6 inch Triangular Boxwood Scales, graduated $\frac{3}{32}$, $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{3}{4}$, $\frac{1}{2}$, 1, $1\frac{1}{2}$ and 3 inches to the foot, also $\frac{1}{32}$ inches or divided on one edge each to 10ths, 20ths, 30ths, 40ths, 50ths and 60ths of an inch.....each	1.50
Price, 12 inch Triangular Boxwood Scales, graduated 10ths, 20ths, 30ths, 40ths, 50ths and 60ths..... each	2.00
Price, 24 inch Triangular Boxwood Scales, graduated same as 12 inch each	5.00

Graduations of Steel Rules Divided into Parts of an Inch.

Number of Graduation	1	2	4
First Corner	10, 20, 50, 100	8	8
Second Corner	12, 24, 48	10, 20, 50, 100	16
Third Corner	14, 28	12, 24, 48	32
Fourth Corner	16, 32, 64	16, 32, 64	64

Number of Graduation	5	6	7
First Corner	11, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25	32	16
Second Corner	16, 32, 64	48	32
Third Corner	26, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 38	50	64
Fourth Corner	39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 100	64	100

Number of Graduation	9	10	11	12	13	14
First Corner	10, 20	32	64	50	8	8
Second Corner	16	64	100	100	16	32
Third Corner	32, 64	.....	.....	.....	.....	.....
Fourth Corner	50, 100	.....	.....	.....	.....	.....

Standard Steel Rules, from 2 to 24 inches and Tempered Steel Rules, 10 to 12 inches in length, with Number 4 Graduation only, are furnished with Patent End Graduations without additional cost.

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STEEL SQUARES.

TRY, HARDENED.

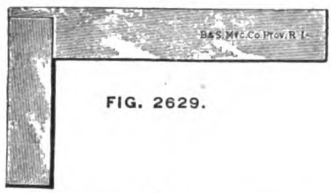

FIG. 2629.

TRY, GRADUATED, NOT HARDENED.

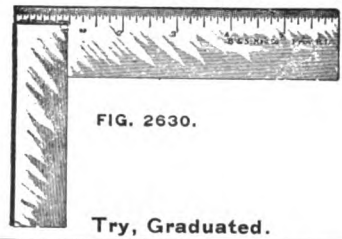

FIG. 2630.

Try.

Number.	Length of Blade, Inches.	Length of Beam, Inches.	Price, Each.
550	$1\frac{1}{2}$	$1\frac{9}{16}$	1.75
552	3	$2\frac{7}{16}$	2.50
554	$4\frac{1}{2}$	$3\frac{9}{16}$	3.50
555	6	$4\frac{3}{8}$	4.50
556	9	$5\frac{5}{8}$	6.50
557	12	$7\frac{1}{8}$	9.00
558	15	$8\frac{3}{16}$	15.00
560	18	$10\frac{1}{4}$	18.00

Try, Graduated.

Number.	Length of Blade, Inches.	Length of Beam, Inches.	Price, Each,
590	3	2	2.00
592	4	$2\frac{9}{16}$	2.50
594	6	$3\frac{3}{4}$	3.50
596	9	5	6.00
598	12	$6\frac{1}{16}$	7.00
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

THIN.

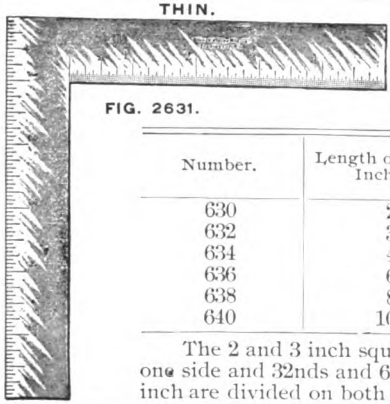

FIG. 2631.

Number.	Length of Blade, Inches.	Width of Blade, Inches.	Price, Each.
630	2	$\frac{1}{2}$	1.00
632	3	$\frac{5}{8}$	1.50
634	4	$\frac{3}{4}$	2.00
636	6	1	3.00
638	8	$1\frac{1}{8}$	4.00
640	10	$1\frac{1}{4}$	5.00

The 2 and 3 inch squares are divided to 16ths and 64ths on one side and 32nds and 64ths on the other. The 4, 6, 8 and 10 inch are divided on both sides to 16ths and 32nds.

Number.	Length of Blade, Inches.	Length of Head, Inches.	Price, Each.
650	4	3	2.00
652	6	4	2.50
654	8	$5\frac{1}{2}$	3.50
656	10	7	5.00
658	12	$8\frac{3}{4}$	6.00

UNIVERSAL OR CENTER.

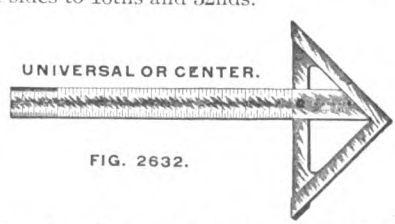

FIG. 2632.

The Blades are graduated on one side only. The 4 inch to 32nds on first corner and 20ths on the second. The 6, 8, 10 and 12 inch on first corner to 16ths; the last inch of first corner to 32nds. The second corner to 12ths, the last inch to 48ths.

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SQUARES AND INCLINOMETERS.

COMBINATION SQUARE, WITH HARDENED BLADE.

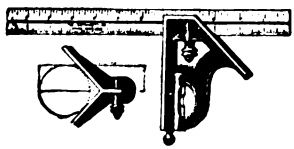

FIG. 2633.

DOUBLE SQUARE, WITH HARDENED BLADE.

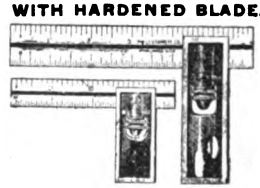

FIG. 2634.

Combination Squares.

Size.....inches	4	6	9	12	18	24
Price, without Center Head.....each	.75	1.00	1.25	1.50	2.25	2.75
Price, with Center Head.....each	.....	1.50	1.75	2.00	2.75	3.25

The 6, 9, 12, 18 and 24 inch have levels and center heads; the 18 and 24 inch have same stock as 12 inch.

Double Squares.

Size .....inches	4	6	9	12
Price.....each	1.25	2.00	3.00	4.00
Price with Both Blades.....each	1.65	2.50	.....	.....

Both blades furnished with 4 and 6 inch; 6, 9 and 12 inch have levels.

COMBINATION SQUARE, WITH HARDENED BLADE.

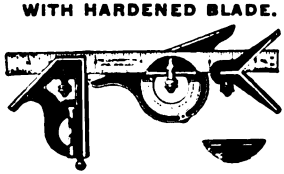

FIG. 2635.

INCLINOMETER, WITH HARDENED BLADE.

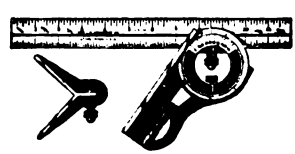

FIG. 2636.

Combination Squares.

Size.....inches	9	12	18	24
Price, set complete.....each	3.75	4.00	4.75	5.25

Inclinometers.

Size, Blade.....inches	12	18	24
Price.....each	4.00	5.00	6.00

Center Head to fit all sizes 75 cents, extra; Blades are graduated one edge each in 8ths, 16ths, 32nds and 64ths.

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THE W. M. PATTISON SUPPLY CO. 971 CLEVELAND

BEVELS.

UNIVERSAL

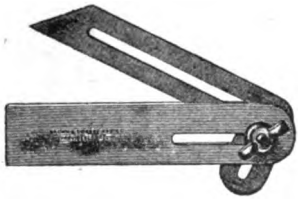

FIG. 2637.

BEVEL PROTRACTOR, WITH HARDENED BLADE

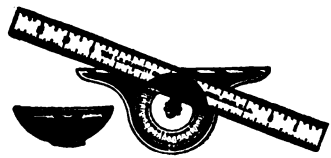

FIG. 2638.

Universal.

Price, 3 inch	each	1.50

Bevel Protractor.

Size	inches	9	12	18	24
Price, Complete	each	2.75	3.00	3.50	4.00

Protractor Head with Level attachment, 2.00. Level only, .25.

UNIVERSAL BEVEL PROTRACTOR.

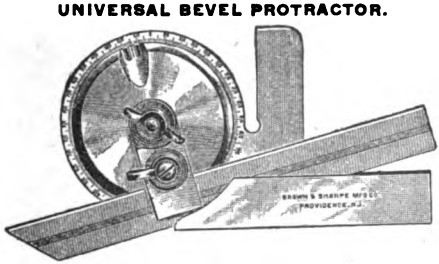

FIG. 2639.

BEVEL PROTRACTOR, WITH HALF CIRCLE DIVIDED INTO DEGREES.

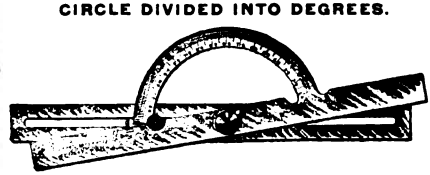

FIG. 2640.

Universal Bevel Protractors.

Number	495	496
Size, Blade inches	6	12
Price each	8.00	9.00
Price, Morocco Case, extra each	1.00	1.50

Bevel Protractors.

Number	490	492
Length of Sliding Arm inches	6	10
Price each	4.50	5.75

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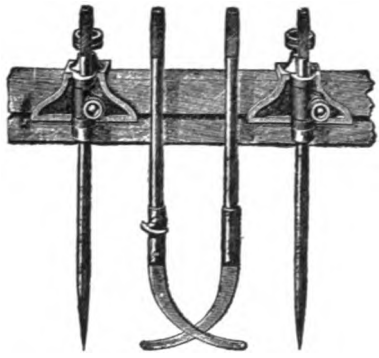
THE W. M. PATTISON SUPPLY CO. CLEVELAND

BEAM TRAMMELS AND POINTS.

EXTENSION BEAM TRAMMELS, NICKEL PLATED.



EXTENSION, STEEL BEAM TRAMMELS.

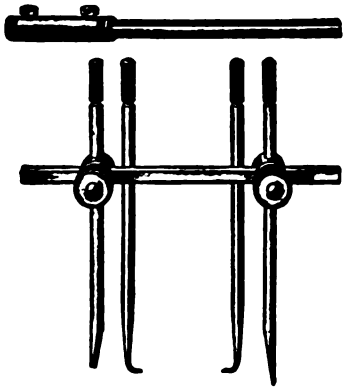


FIG. 2641. **Extension Beam Trammels.** FIG. 2642.

Price, Complete, Nickel Plated	each	3.25
Price, Nickel Plated, without Caliper Legs	each	2.50

Extension Steel Beam Trammels.

Size inches	14	28	42
Number of Sections	1	2	3
Price each	2.20	2.60	3.00
Price, Nickel Plated each	2.50	3.00	3.50

Extra Sections, extra, .40; Nickel Plated, .50; Caliper Points extra per pair, .50; Nickel Plated, .60.

TRAMMEL POINTS, NICKEL PLATED.

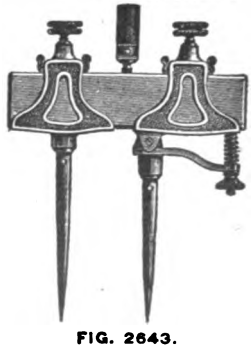


FIG. 2643.

Price, with 3 inch Points	each	1.50
Price, with 3 inch Adjustable Points	each	2.50
Price, Extra Long Points, 5 inch	per set	.35

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THE W. M. PATTISON SUPPLY CO. 973 CLEVELAND

BOXWOOD AND STEEL RULES.
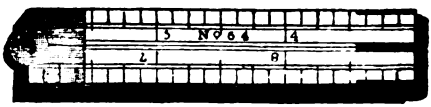
FIG. 2644.

CALIPER.

FIG. 2645.

One Foot, Four Fold, 5/8 Inches Wide.

Price, No. 65. Square Joint, Middle Plates, 8ths and 16ths of inches.....per dozen	3.50
Price, No. 64. Square Joint, Edge Plates, 8ths and 16ths of inches.....per dozen	5.00

Two Foot, Four Fold, 1 Inch Wide.

Price, No. 68, Round Joint, Middle Plates, 8ths and 16ths.....per dozen	4.00
Price, No. 61, Square Joint, Middle Plates, 8ths and 16ths.....per dozen	5.00
Price, No. 84, Square Joint, Half Bound, 8ths, 10ths, 12ths and 16ths, Drafting Scales.....per dozen	12.00
Price, No. 62, Square Joint, Bound, 8ths, 10ths, 12ths and 16ths, Drafting Scales.....per dozen	15.00

Two Foot, Four Fold, 1 3/8 Inches Wide.

Price, No. 70, Square Joint, Middle Plates, 8ths and 16ths, Drafting Scales.....per dozen	7.00
Price, No. 72½, Square Joint, Bound, 8ths, 10ths and 16ths, Drafting Scales.....per dozen	18.00

Caliper Rules.

Price, No. 36, 6 inch, Two Fold, Square Joint, 8ths, 10ths, 12ths and 16ths, ¾ inch wide.....per dozen	7.00
Price, No. 36½, 12 inch, Two Fold, Square Joint, 8ths, 10ths, 12ths and 16ths, 1⅜ inch wide...per dozen	12.00
Price, No. 32, 12 inch, Four Fold, Arch Joint, Edge Plates, 8ths, 10ths, 12ths and 16ths, 1 inch wide.per dozen	12.00

Engineers' Pocket Rules; Spring Joint; 16th Graduations.

Length.....feet	2	4	6
Price, Yellow; Black Graduations, ⅝ inch wide..per dozen	3.00	6.00	9.00
Price, Yellow; Black Graduations, 7/16 inch wide.per dozen	4.50	9.00	.....

Folding Steel Rules; 2 Foot; ¾ Inches Wide.

Number.....	80	70	81	80½
Length of Joints.....inches	12	6	12	12
Price, Graduated, 8ths and 16ths.....per dozen	10.00	14.00	.....	18.00
Price, Graduated, 16ths and Circumference Inches.per dozen	.....	.....	15.00	.....

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MEASURING TAPES.

UNIVERSAL: PATENT LEATHER CASE.

FIG. 2646.

METALLIC: HARD LEATHER CASE.

FIG. 2647.

Universal; ½ Inch Cotton Tape, Brass Trimmings.

Length.....feet	25	30	40	50	66	75	100
Price..... per dozen	4.75	5.00	5.75	6.25	7.25	8.75	10.00

Universal; ½ Inch India Tape, Brass Trimmings.

Length.....feet	25	30	40	50	66	75	100
Price..... per dozen	5.00	5.50	7.00	8.00	9.00	10.00	12.50

Metallic; 5/8 Inch Linen Tape, Metallic Warp; Brass Trimmings.

Length.....feet	25	33	40	50	66	75	100
Price, Marked one side.....per dozen	20.40	24.00	26.40	30.00	33.60	37.20	46.80
Price, Marked both sides ...per dozen	21.60	25.20	27.60	31.20	36.00	39.60	50.40

STEEL MEASURING TAPES.

POCKET: GERMAN SILVER CASE, SPRING WIND, WITH STOP.

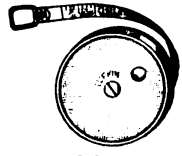

FIG. 2648.

CHALLENGE: HARD LEATHER CASE.

FIG. 2649.

Pocket; Marked One Side, Inches and 1-16ths.

Length..... feet	3	5	6	8	*8	*10	*12
Width of Steel Tape.....inches	¼	¼	¼	¼	¼	5/16	5/16
Price..... per dozen	8.50	11.00	12.00	18.00	18.00	25.00	28.00

*Marked, feet, inches and sixteenths.

Challenge; 3/8 Inch Steel Tape, Flush Handle, Nickel Plated Trimmings.

Length.....feet	25	50	75	100
Diameter of Case.....inches	2¾	3½	4½	4½
Price, Marked One Side, feet and 12ths.....per dozen	39.00	48.00	63.00	81.00

Also marked feet, 10ths and 100ths, for surveyors' use.

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STEEL MEASURING TAPES.

RIVAL: NICKEL PLATED STEEL CASE.

FIG. 2650.

RELIABLE: HARD LEATHER CASE.

FIG. 2651.

Rival: ⅜ Inch Steel Tape, Flush Handle.

Length.....feet	25	50	75	100
Diameter of Case.....inches	2¾	3⅜	3¾	4¼
Price, marked one side, feet and 12ths.....per dozen	33.00	40.80	54.00	69 00

Also marked feet, 10ths and 100ths for surveyors' use.

Reliable: ⅜ Inch Steel Tape, Double Folding Flush Handle; Nickel Plated Trimmings.

Length.....feet	25	33	40	50	66	75	100
Diameter of Case.....inches	2¼	2¾	3¼	3¼	3¾	4¼	4½
Price, Marked feet and 12ths.....each	4.50	5.20	6.00	7.20	9.20	10.40	12.80
Price, extra for Nickel Plating.....each	1.00	1.00	1.50	1.50	1.75	1.75	2.00

Also marked feet, 10ths and 100ths for surveyors' use.

ENGINEERS' PATTERN FRAME.

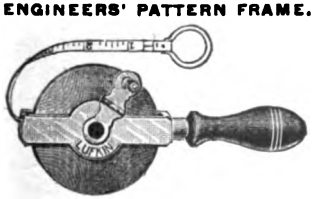

FIG. 2652.

ENGINEERS' PATTERN, HARD LEATHER STEEL LINED CASE.

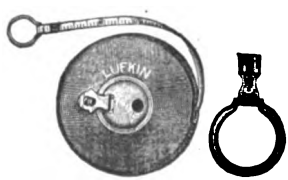

FIG. 2653

Engineers' Pattern Frame, ¼ Inch Steel Tape, Folding Winding Handle, Detachable Rings and Frame. Nickel Plated Trimmings.

Length.....feet	50	66	75	100
Price, marked one side, feet and 12ths.....each	5.25	6.25	7.50	9.00

Also marked feet, 10ths and 100ths for surveyors' use.

Engineers' Pattern, ¼ Inch Steel Tape, Detachable Rings and Nickel Plated Trimmings.

Length.....feet	50	66	75	100
Diameter of Case.....inches	4	4½	4½	5
Price, marked one side, feet and 12ths.....each	6.00	8.00	9.50	12.00

Also marked feet, 10ths and 100ths for surveyors' use.

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THE W. M. PATTISON SUPPLY CO. 976 CLEVELAND

PLUMB BOBS.

IRON, JAPANNED.

FIG. 2654.

BRASS, STEEL POINT.

FIG. 2655.

THOMPSONS' BRASS, STEEL POINT.

FIG. 2656.

Iron, Japanned.

Number	1	1½	5
Weight	9½ oz.	1½ lbs.	2¾ lbs.
Price.....per dozen	.84	2.00	2.25

Brass, Steel Point.

Number	2	3
Weight.....ounces	6½	12
Price.....per dozen	3.75	5.25

Thompson's, Brass, Steel Point.

Number	1	2	3	4	5	6	7	8	*9	*10
Weight.....ounces	1	2	3¾	5	8	13½	17	31	7½	10½
Price.....each	.85	.95	1.10	1.25	1.50	2.50	3.00	3.50	2.00	2.50

* Surveyors'.

MERCURY PLUMB BOBS.

FIG. 2657.

Mercury Plumb Bobs, Nickel Plated, Complete with Braided Silk Line.

Number	793	794	795	796
Weight.....ounces	3½	6	12	16
Length.....inches	4	4½	5⅜	6
Diameter.....inches	½	⅝	⅞	1
Price.....each	1.00	1.50	2.00	2.50

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THE W. M. PATTISON SUPPLY CO. 977 CLEVELAND

LEVELS.

ADJUSTABLE BENCH LEVELS.

FIG. 2658.
4, 6 AND 8 INCH SIZES.

FIG. 2659.
12 INCH SIZE.
THE 18 INCH IS SIMILAR, BUT WITH DOUBLE PLUMB.

Adjustable Bench Levels, No. 95.

Length..... inches	4	6	8	12	18
Price, Plain Vial..... each	1.00	1.25	1.50	2.00	3.00

Nickel Plated Base, 25 cents extra.

Adjustable Bench Levels, No. 96.

Length..... inches	4	6	8	* 12	† 18
Price, with Ground and Graduated Vial.each	2.50	3.50	4.00	5.50	8.00

* With Plumb. † With Double Plumb. Nickel Plated Base, 25 cents extra.

FIG. 2660.

Hydrostatic Levels.

For lining up shafting, finding levels at long distance, over obstructions or around corners. Giving the points out of level and showing the same in inches and fractions of an inch.

Prices include rubber tubing, couplings and case. No. 1 can be used with 25 feet of hose, No. 2 with 100 feet.

Number.....	1	2
Variation from Level Line.....inches	3½	6
Price.....each	10.00	15.00

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THE W. M. PATTISON SUPPLY CO. 978 CLEVELAND

LEVELS.

PLUMB AND LEVEL.

FIG. 2661.

Plumbs and Levels, Arch Top Plate, Two Side Views, Polished and Tipped.

Price, No. 0, 24 to 30 inch	each	1.50
Price, No. 3, 26 to 30 inch	each	2.50
Price, No. 5, 26 to 30 inch, Triple Stock	each	4.00

POCKET LEVEL.

FIG. 2662.

BENCH LEVEL.

FIG. 2663.

Pocket and Bench Levels.

Length	inches	2½	3½
Price, Pocket Levels, Nickel Plated	each	.40	.50
Price, Bench Level	each		.30

BENCH LEVELS WITH DOUBLE PLUMBS.

4 TO 12 INCH.

FIG. 2664.

18 TO 24 INCH.

FIG. 2665.

Bench Levels with Double Plumbs.

Length inches	4	6	9	12	18	24
Price each	1.35	1.50	1.65	1.75	2.00	2.25

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THE W. M. PATTISON SUPPLY CO. 979 CLEVELAND

HAMMERS.

Adze Eye Nail Hammers.

STANDARD.

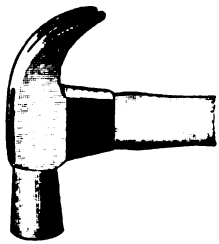

FIG. 2666.

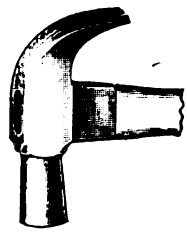

FIG. 2667.

BELL FACE.

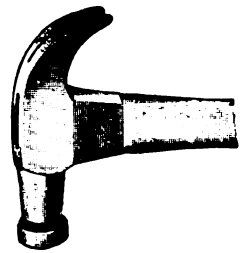

FIG. 2668.

Size	0	1	1½	2	3
Weight not Including Handle	1 lb. 12 oz.	1 lb. 4 oz.	1 lb.	13 oz.	7 oz.
Price, Standard.....per dozen	.....	.....	6.50	.....	.....
Price.....per dozen	12.50	9.00	8.50	8.00	7.50

Riveting Hammers.

PLAIN EYE.

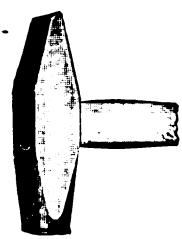

FIG. 2669.

ADZE EYE.

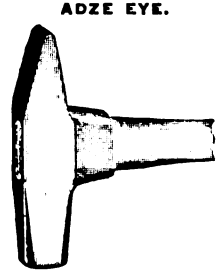

FIG. 2670.

Plain Eye.

Size	0	1	2	3	4	5	6	7
Weight	4 oz.	7 oz.	9 oz.	12 oz.	15 oz.	1 lb. 2 oz.	1 lb. 6 oz.	1 lb. 10 oz.
Price..per doz.	5.50	5.75	6.00	6.25	6.50	7.00	7.50	8.00

Adze Eye.

Size	0	1	2	3	4
Weight	6 oz.	9 oz.	12 oz.	1 lb.	1 lb. 4 oz.
Price.....per dozen	7.00	7.50	8.00	8.50	9.00

Weight does not include handle.

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THE W. M. PATTISON SUPPLY CO. 980 CLEVELAND

HAMMERS.

Engineers' Hammers.

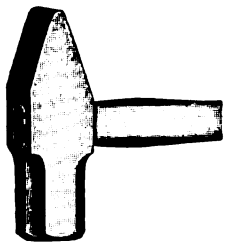

FIG. 2671.

DOUBLE FACE.

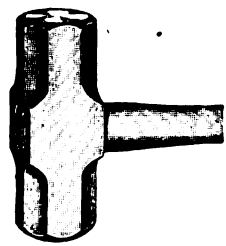

FIG. 2672.

Engineers' Hammers.

Size	0	1	2	3	4	5	6
Weight	1 lb 2 oz	1 lb 10 oz	2 lb	2 lb 8 oz	3 lb	3 lb 8 oz	4 lb 8 oz
Price.....per dozen	12.00	13.00	14.00	15.00	16.00	17.00	19.00

Engineers' Hammers, Double Face.

Size	1	2	3	4
Weight	1 lb 8 oz	2 lb 6 oz	3 lb	3 lb 10 oz
Price.....per dozen	14.50	16.50	18.00	19.50

Machinists' Hammers.

BALL PEIN.

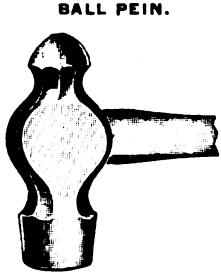

FIG. 2673.

STRAIGHT PEIN.

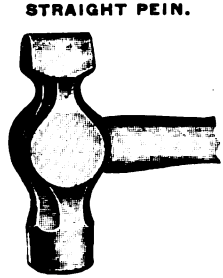

FIG. 2674.

CROSS PEIN.

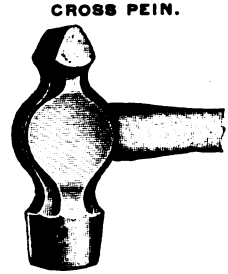

FIG. 2675.

Number	00000	0000	000	00	0	1	2
Weight	4 oz	6 oz	8 oz	12 oz	1 lb	1 lb 4 oz	1 lb 8 oz
Price.....per dozen	12.00	12.00	12.00	12.00	12.50	13.50	14.50

Number	3	4	5	6	7	8	.....
Weight	1 lb 12 oz	2 lb	2 lb 4 oz	2 lb 8 oz	2 lb 12 oz	3 lb	.....
Price.....per dozen	15.50	16.50	17.50	19.00	20.50	22.00	.....

Weight does not include handles.

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HAMMERS.

Farriers' Hammers.

PLAIN EYE, ROUND POLL.

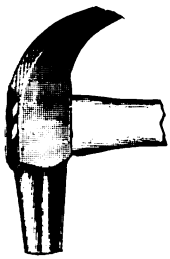

FIG. 2676.
No. 170.

ADZE EYE, OCTAGON POLL.

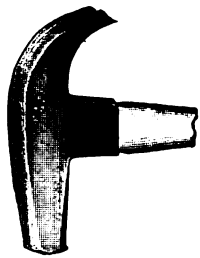

FIG. 2677.
No. 180.

TURNING HAMMER.

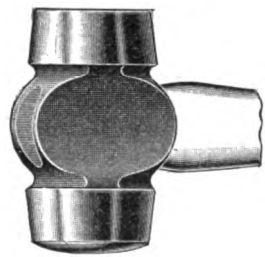

FIG. 2678.
No. 480.

Number	170	180	480
Weight	7 oz.	7 oz.	2 to 3 lbs.
Price, Farriers' Hammers, per dozen	6.25	7.50	
Price, Farriers' Turning Hammers, per dozen			30.00

Octagon Poll, Plain Eye, same price as Plain Eye, Round Poll.

Round Poll, Adze Eye, same price as Adze Eye, Octagon Poll.

BLACKSMITHS' HAND HAMMER.

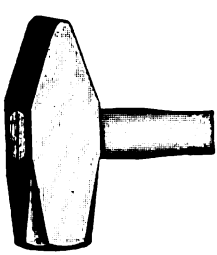

FIG. 2679.

BOILERMAKERS' HAMMER.

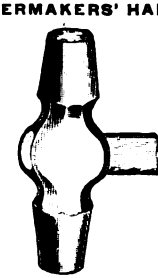

FIG. 2680.

Blacksmiths' Hand Hammers.

Size	0	1	2	3	4	5
Weight	1 lb. 10 oz.	2 lb.	2 lb. 10 oz.	3 lb.	3 lb. 8 oz.	4 lb. 8 oz.
Price, per dozen	13.00	14.00	15.00	16.00	17.00	19.00

Boilermakers' Hammers.

Price, 2 to 3 pound, per pound	.50

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THE W. M. PATTISON SUPPLY CO. 982 CLEVELAND

HAMMERS AND MALLETS.

COPPER HAMMER.

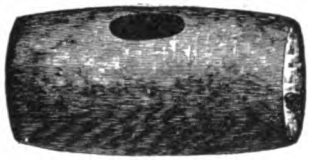

FIG. 2681.

COPPER TIPPED HAMMER.

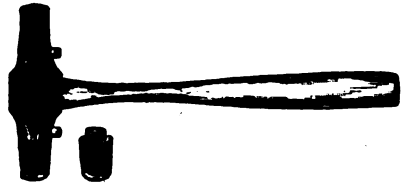

FIG. 2682.

Copper Hammers; Weight 1 to 10 Pounds.

Price, Round or Octagon Pattern.....per pound	.75

Copper Tipped Hammers.

Number	1	2	3
Weight.....ounces	12½	15½	24
Price..... per dozen	18.00	20.40	24.00
Price, Nickel Plated.....per dozen	24.00	26.40	30.00
Price, Extra Copper Tips.....per dozen pairs	6.00	7.20	8.40

HIDE FACED MALLET.

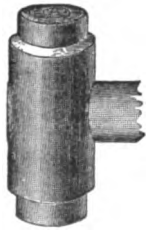

FIG. 2683.

RAW-HIDE MALLET.

FIG. 2684.

Hide Faced Mallets.

Number	0	1	2	3	4	5
Weight.....pounds	½	1	1½	2	4	5½
Diameter of Face.....inches	1	1¼	1½	1¾	2	2¾
Price.....per dozen	8.00	9.45	12.00	14.40	20.80	29.60
Price, Extra Faces .....per dozen pairs	2.40	2.55	3.20	4.00	5.60	8.00

Raw-Hide Mallets.

Number	0	1	2	3	4	5	6
Diameter.....inches	1	1¼	1½	1¾	2	2¾	2¾
Length.....inches	2⅛	2¾	3	3⅛	3½	4½	4¾
Weight.....ounces	1½	3½	6	7½	10	21	23
Price..... per dozen	3.20	4.00	4.80	5.60	7.20	16.00	20.00

Loaded Raw-Hide Mallets.

Number	7	8	9	10	11
Diameter.....inches	1¼	1½	1¾	2	2¾
Length.....inches	2¾	3	3⅛	3½	4½
Weight..... ounces	7	12	15	20	42
Price.....per dozen	4.80	5.60	6.40	8.00	16.00

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THE W. M. PATTISON SUPPLY CO. 983 CLEVELAND

MALLETS.

TINNERS' ROUND HICKORY.

FIG. 2685.

Nos. 0 to 2.

ROUND; LIGNUM-VITÆ, MORTISED.

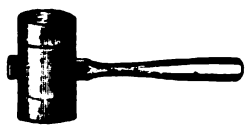

FIG. 2686.

Nos. 5 to 7.

SQUARE, HICKORY AND LIGNUM-VITAE, MORTISED.

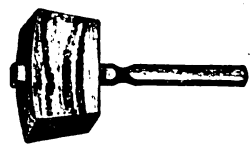

FIG. 2687.

Nos. 8 to 13.

Round Hickory and Lignum-Vitae Mallets.

Number	0	00	000	1	2	5	6	7
Diameter.....inches	2	2½	3	2 to 2½	3½	3	3½	4
Length.....inches	5	6	6	5½	5½	5	5½	6
Price, Nos. 0 to 2..per dozen	2.00	2.25	2.50	1.00	2.00	.....	.....	.....
Price, Nos. 5 to 7..per dozen	.....	.....	.....	.....	.....	3.00	4.00	5.00

Square Hickory and Lignum-Vitae Mallets.

Number	8	9	10	11	12	13
Length, Width and Thickness...inches	6x2½x3½	6½x2¾x3¾	7x3x4	6x2½x3½	6½x2¾x3¾	7x3x4
Price, Hickory..per dozen	2.00	2.50	3.00	.....	.....	.....
Price, Lignum-Vitæ..per dozen	.....	.....	.....	3.75	4.75	5.75

ROUND, MORTISED, IRON RING.

FIG. 2688.

No. 14.

ROUND IRON, MORTISED HICKORY ENDS.

FIG. 2689.

No. 15.

MALLEABLE IRON SOCKET; MORTISED, HICKORY ENDS.

FIG. 2690.

No. 16.

Round Mallets.

Price, No. 14, 4 inches diameter, 6 inches long.....per dozen	5.50
Price, No. 15, 2½ inches diameter, 4 inches long.....per dozen	4.00
Price, No. 16, 3 inches diameter, 6 inches long..... per dozen	7.50

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CHISELS AND PUNCHES.

COLD.

FIG. 2691.

CAPE.

FIG. 2692.

ROUND NOSE.

FIG. 2693.

DIAMOND POINT.

FIG. 2694.

Cold, Cape, Round Nose and Diamond Point Chisels.

Size of Steel.....inches	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1
Price.....per dozen	2.00	2.00	2.50	3.50	4.00	5.00	7.00	10.00

YARNING IRON.

FIG. 2695.

CALKING IRON.

FIG. 2696

Number	1	2	3	4	5	6	7	8
Price, Yarning Iron 1/8 inch thick at point..each	.85	.....	.....	.....	.....	.....	.....	.....
Price, Yarning Iron 1/16 inch thick at point..each	.....	.90	.....	.....	.....	.....	.....	.....
Price, Calking Irons.....each	.70	.70	.70	.75	.75	.80	.80	.85
Size of Calking Irons.....inches	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1

ROUND HAND PUNCH.

FIG. 2697.

CENTER PUNCH.

FIG. 2698.

Round Hand Punches.

Size.....inches	3/8	1/2	5/8	3/4	7/8	1
Length.....inches	6	6 1/2	7 1/2	8 1/4	8 3/4	9 1/4
Point.....inches	1/2	1/16	1/8	3/16	1/4	5/16
Approximate Weight.....per dozen	2 lb 4 oz	4 lb	7 lb	10 lb	15 lb	21 lb

Price ..... per pound	.38

Center Punches.

Size.....inches	1/4	5/16	3/8	7/16	1/2
Price, Polished.....per dozen	2.25	3.00	3.50	4.50	6.50

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HACK SAW FRAMES AND BLADES.

Hack Saw Frames.

SOLID STEEL FRAME.

FIG. 2699.

LOCK EXTENSION FRAME.

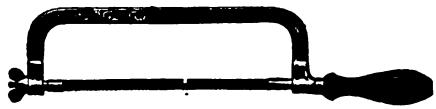

FIG. 2700.

Solid Steel Frame, Natural Finish.

Size ..... inches	8	9	10	11	12
Price ..... per dozen	5.00	5.50	6.00	6.50	7.00

Lock Extension Frame, Nickel Plated.

Size ..... inches	8 to 12
Price ..... per dozen	12.00

HEAVY HACK SAW FRAMES.

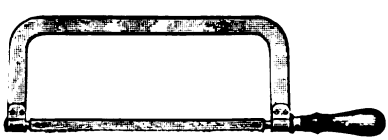

FIG 2701.

No. 14.

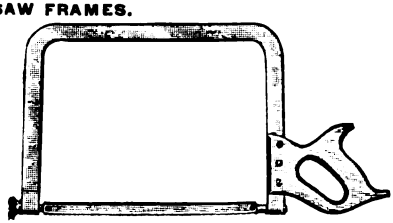

FIG. 2702.

No. 15.

Price, No. 14, 12 inch, 5¼ inches deep ..... per dozen	15.00
Price, No. 15, 12 inch, 10½ inches deep from blade to back ..... per dozen	18.00

Hack Saw Blades.

Eureka and Thompson Flexible Back Hack Saw Blades, Hardened Teeth.

Length ..... inches	6	7	8	9	10	11	12	13	14	15	16
Width ..... inches	7/16	7/16	7/16	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Price ..... per dozen	.55	.60	.65	.70	.75	.85	.90	.95	1.00	1.05	1.10

Sterling and Star Hack Saw Blades.

Length ..... inches	6	7	8	9	10	11	12	12	14	14	17
Width ..... inches	1/2	1/2	1/2	1/2	5/8	5/8	5/8	3/4	5/8	3/4	3/4
Price, Sterling ..... per dozen	.55	.60	.65	.70	.85	.95	1.05	1.25	1.25	1.50	2.50
Price, Star ..... per dozen	.55	.60	.65	.70	.85	.95	1.05	.....	.....	.....	.....

The Milford All Hard Hack Saw Blades.

Length ..... inches	6	7	8	9	10	11	12
Width ..... inches	7/16	7/16	7/16	1/2	1/2	9/16	9/16
Price ..... per dozen	.55	.60	.65	.70	.85	.95	1.05

XL Flexible Back Hack Saw Blades, for Power Machines.

Length ..... inches	8	9	10	11	12	13½–14	16	16½	12	13½–14	13½–14
Width ..... inches	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	3/4	3/4	1
Price ..... per dozen	.75	.80	.85	.95	1.05	1.25	1.45	1.55	1.15	1.45	1.92

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THE W. M. PATTISON SUPPLY CO. 986 CLEVELAND

AUTOMATIC DRILLS.

FIG. 2703.

No. 0.

FIG. 2704.

No. 1.

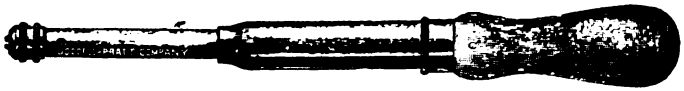


FIG. 2705.

No. 2.

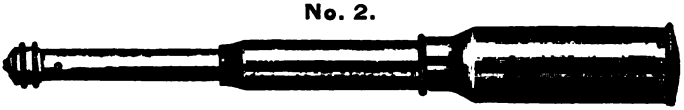
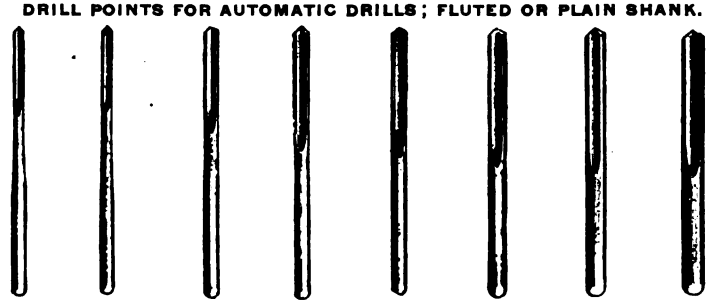


FIG. 2706.

No. 3.

Price, No. 0 without Drills, capacity of three jawed chunk $\frac{1}{4}$ inch..per dozen	30.00
Price, No. 1, Brass, nickel plated, 9$\frac{1}{2}$ inches long with 8 drills $\frac{1}{16}$ to $\frac{1}{4}$ per dozen	24.00
Price, No. 01, same as No. 1 dull nickel finish.....per dozen	18.00
Price, No. 2, same as No. 1, with cocobola handle.....per dozen	24.00
Price, No. 02, same as No. 2, dull nickel finish.....per dozen	18.00
Price, No. 3, Brass, nickel plated, with 8 drills contained in handle...per dozen	26.00
Price, No. 03, same as No. 3, dull nickel finish.....per dozen	20.00

DRILL POINTS FOR AUTOMATIC DRILLS; FLUTED OR PLAIN SHANK.



No. 1. No. 2. No. 3. No. 4. No. 5. No. 6. No. 7. No. 8.

FIG. 2707.

Approximate Size....inches	$\frac{1}{16}$	$\frac{5}{64}$	$\frac{3}{32}$	$\frac{7}{64}$	$\frac{1}{8}$	$\frac{9}{64}$	$\frac{5}{32}$	$\frac{11}{64}$
Price.....per dozen								.72

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THE W. M. PATTISON SUPPLY CO. 987 CLEVELAND

BRACES AND BREAST DRILLS.

BIT-BRACE.

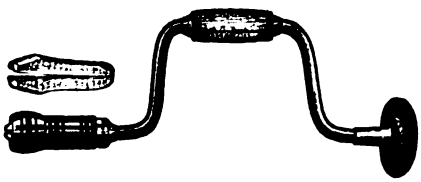

FIG. 2708.
No. 52.

BALL BEARING BRACE.

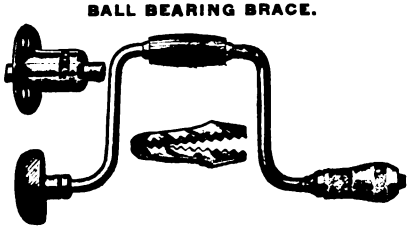

FIG. 2709.
Nos. 10 to 15.

Bit-Braces.

Price, No. 52, 10 inch Polished Sweep .....per dozen	12.75
Price, No. 52 A, 10 inch Nickel Plated Sweep.....per dozen	18.00
Price, No. 152 A, 10 inch Nickel Plated Sweep Ratchet Brace...per dozen	28.00

Ball Bearing Braces.

Number	10	11	12	13	14	15
Sweep.....inches	14	12	10	8	6	*4
Price.....per dozen	33.00	30.00	27.00	24.00	21.00	20.00

* Not Ball Bearing.

RATCHET BALL BEARING BRACE.

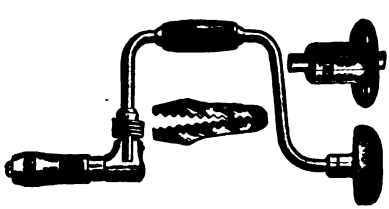

FIG. 2710.
Nos. 30 to 34.

BALL BEARING BREAST DRILL.

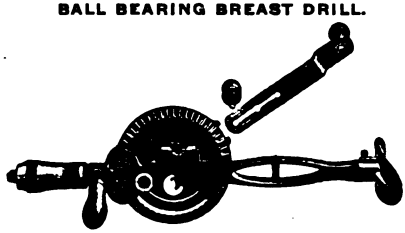

FIG. 2711.
No. 12.

Ratchet Ball Bearing Braces.

Number	30	31	32	33	34
Sweep..... inches	14	12	10	8	6
Price.....per dozen	42.00	39.00	36.00	33.00	30.00

Ball Bearing Breast Drills.

Number	12	18
Price.....per dozen	30.00	42.00

Number 12 has changeable gear from even to speeded, about 3 to 1. Cut gears, adjustable cranks, level attachment, alligator jaws for round and square shanks, also an extra pair of jaws for fine drills.

Number 18 is the same as Number 12, excepting it has three jawed chuck for round shanks, $\frac{1}{16}$ to $\frac{1}{2}$ inch inclusive.

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BREAST DRILLS AND DRILLING MACHINES.

BALL BEARING, DOUBLE GEARED.

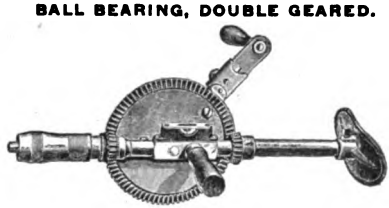

FIG. 2712.

No. 13.

RATCHET.

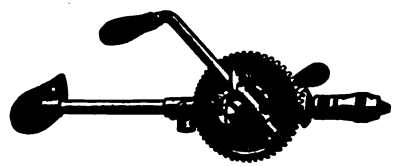

FIG. 2713.

No. 16.

Number	13	16
Price ..... per dozen	48.00	48.00

Number 13 has 6 inch drive wheel giving speed 4½ to 1; cut gears and level attachment.
Number 16 is arranged with two speeds; diameter of driving wheel 5 in., pinion 2 in.

SINGLE GEARED.

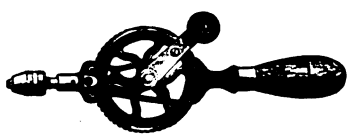

FIG. 2714.

No. 4½.

DOUBLE GEARED.

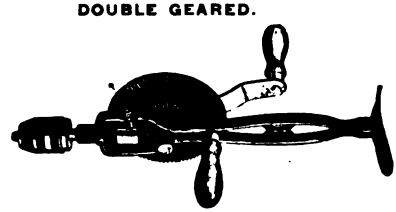

FIG. 2715.

No. 6.

Number	4½	05	5	6	61	7	07	7½
Chuck	3 Jaw	3 Jaw	3 Jaw	3 Jaw	Morse No. 1	Bit Brace Round and Square Shank.	Bit Brace Square Shank	Bit Brace Square Shank
Capacity of Chuck...inches	0 to 5/32	0 to ¼	0 to ¼	0 to ½	⅛ to 9/32			
Price...per dozen	20.00	27.00	36.00	48.00	48.00	42.00	36.00	42.00

8 Drills are furnished with Nos. 4½ and 5: Numbers 6 to 07 have two speeds.

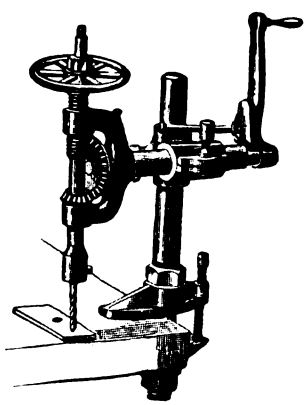

FIG. 2716.

Angular and Ratchet Drilling Machines.

Number	1	2	3
Size Hole Will Drill.....inches	⅝	1	1½
Weight.....pounds	34	64	108
Price..... each	20.00	25.00	40.00

Numbers 2 and 3 are back geared.

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THE W. M. PATTISON SUPPLY CO. 989 CLEVELAND

WONDER DRILLS.

STYLE A.

FIG. 2717.

SECTIONAL OF CHUCK USED ON STYLE D.

STYLE A, SELF FEEDING.

FIG. 2718.

STYLE C, WITH UNIVERSAL CHUCK.

FIG. 2719.

STYLE C, SELF FEEDING.

FIG. 2720.

Style.....	A	B	C	D
Drill Shanks will hold.....	½ inch Round.	Bit Stock.	⅛ to ½ inch Round and Bit Stock.	Round and Bit Stock.
Price .....per dozen	24.00	24.00	33.00	27.00
Price, Self Feeding.....per dozen	48.00	48.00	60.00	52.00

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THE W. M. PATTISON SUPPLY CO. 990 CLEVELAND

RATCHETS.

KEYSTONE REVERSIBLE; SQUARE SLEEVE.

KEYSTONE REVERSIBLE; MORSE TAPER.

KEYSTONE REVERSIBLE; BOILERMAKERS.

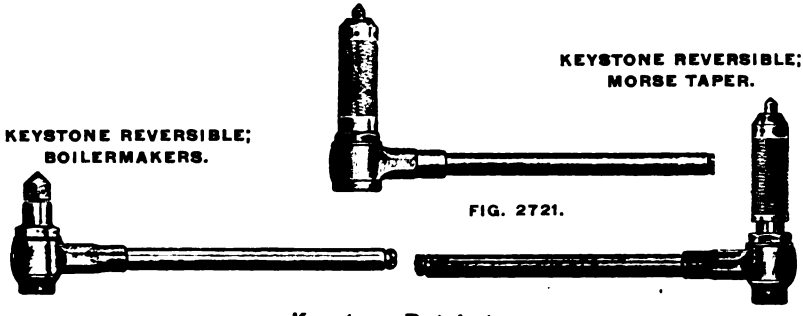

FIG. 2721.

FIG. 2722. **Keystone Ratchets.** FIG. 2723.

Number	1	2	3	4	4	4
Handle.....inches	10	14	16	18–22	24	28
Price, Square Sleeve and Boilermakers.....each	5.00	5.75	6.50	7.25	7.75	8.25
Price, with Morse Taper.....each	5.25	6.00	6.75	7.50	8.00	8.50
Price, Square Shank Sleeves .....each	1.00	1.25	1.25	1.50	.....	.....

WESTON.

PACKER, SLEEVE.

PACKER, BOILERMAKERS.

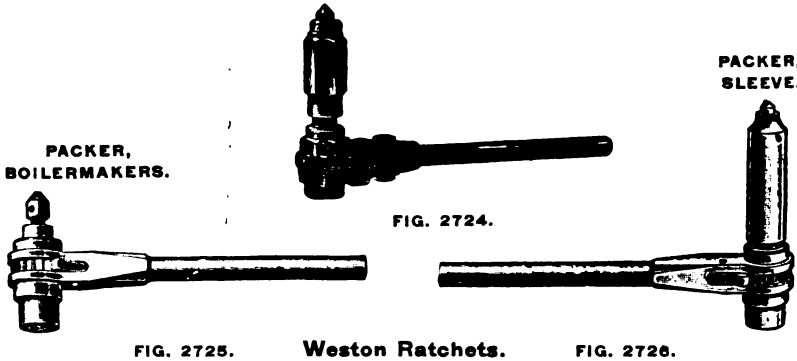

FIG. 2724.

FIG. 2725. **Weston Ratchets.** FIG. 2726.

Handle.....inches	12	14	16	18	20	22	24
Price.....each	7.60	8.00	8.75	10.00	10.50	12.00	14.50

Packer Ratchets, for Square Shank Drills.

Number	1	2	3	4	5
Handle.....inches	10	12	16	18	24
Price, Packer, Boilermakers.....each	9.00	10.50	.....	.....	.....
Price, Packer, Sleeve.....each	10.50	13.50	16.00	19.00	23.00

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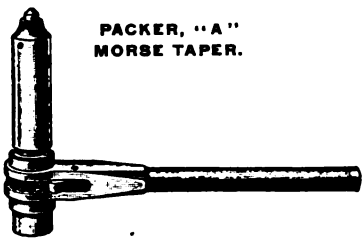
RATCHETS.



PACKER, "A" MORSE TAPER.

FIG. 2727.

RENSHAW.

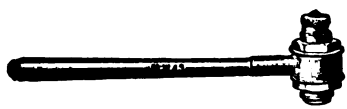


FIG. 2728.

Packer Ratchets "A"; Morse Taper.

Number	2 A	3 A	4 A
Handle.....inches	12	16	18
For Taper Shank Drills.....inches	$\frac{5}{8}$ to $\frac{29}{32}$	$1\frac{3}{8}$ to $1\frac{1}{4}$	$1\frac{9}{32}$ to 2
Price.....each	16.00	20.00	25.00

Morse Sleeves for "A" Ratchets.

Number	1	2	3
For Taper Shank Drills, inches	$\frac{1}{4}$ to $\frac{19}{32}$	$\frac{5}{8}$ to $\frac{29}{32}$	$\frac{15}{16}$ to $1\frac{1}{4}$
	Fitting No 2 A Ratchet	Fitting No. 3 A Ratchet	Fitting No. 4 A Ratchet
Price.....each	1.80	2.40	3.00

Square Sockets for "A" Ratchets.

Number	2	3	4
Fitting Ratchet.....number	2 A	3 A	4 A
Price.....each	1.75	1.75	2.25

Renshaw Ratchets.

Price, No. 1 Ratchet with two Collets.....each	11.00	Price, No. 3 Ratchet with No. 3 or 5 Collets....each	11.05
Price, No. 1 Ratchet with one Collet.....each	9.40	Price, No. 3 Ratchet with No. 1, 2 and 3 Collets each	13.25
Price, No. 1 Collet Square or Taper Hole.. each	1.60	Price, No. 1 or 2 Collet for No. 3 Ratchet.....each	1.10
Price, No. 3 Ratchet with four Collets.....each	15.00	Price, No. 3 or 5 Collet for No. 3 Ratchet.....each	1.75

Renshaw Ratchets are made in two sizes—Number 1 taking drills to $\frac{1}{2}$ inch, Number 3 to $1\frac{1}{2}$ inches.

Number 1 has one collet for drills, with shank $\frac{11}{32}$ inch square at shoulder, and one for drills fitting Number 1 Morse's standard taper socket.

Number 3 has one collet, Number 5, for drills, with shank $\frac{11}{16}$ square at shoulder, of $\frac{1}{2}$ to $1\frac{1}{2}$ inches diameter, which are the extreme sizes that this ratchet is adapted to carry, and collets Numbers 1, 2 and 3, for Morse's standard taper shanks. Number 3 and Number 5 collets are held in the spindle by screw thread. Number 1 and Number 2 collets are tapered externally to fit Number 3 socket.

Length of handles, Number 1, $9\frac{1}{2}$ and Number 3, 18 inches.

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RATCHETS.

MONARCH, SQUARE SLEEVE; SINGLE ACTING.

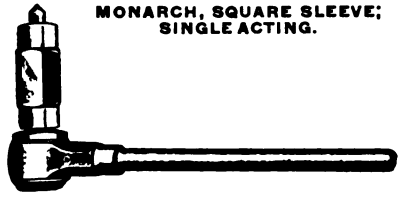

FIG. 2729.

MONARCH; SINGLE ACTING, BOILERMAKERS.

FIG. 2730.

MONARCH; SINGLE ACTING MORSE TAPER.

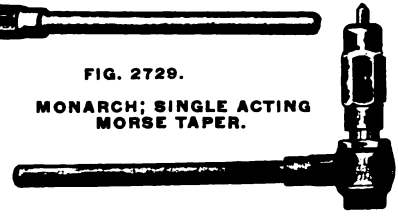

FIG. 2731.

Number	10	20	30	40	50	60	70
Handle.....inches	10	12	15	18	22	24	28
Price, Square Sleeve and Boilermakers..each	5.00	5.50	6.00	7.50	8.50	9.00	10.00
Price, with Morse Taper.....each	5.25	5.75	6.25	7.75	8.75	9.25	10.25

Morse Taper Ratchets.

The Bore of Socket for 10 inch Ratchet is Number 2 Taper, taking Drills up to $\frac{29}{32}$ inches.

The Bore of Socket for 12 and 15 inch Ratchet is Number 3 Taper, taking Drills up to $1\frac{1}{4}$ inches.

The Bore of Socket for 18 to 28 inch Ratchet is Number 4 Taper, taking Drills up to 2 inches.

The Socket for 10 inch Ratchet takes Number 1 Morse Taper Sleeve.

The Socket for 12 and 15 inch Ratchets takes Number 2 Morse Taper Sleeve.

The Socket for 18 to 28 inch Ratchets takes No. 3 Morse Taper Sleeve.

Number	10	20	30	40	50	60	70
Price, Socket for Square Shanks.....each	1.50	1.75	2.00	2.25	2.25	2.25	2.25
Price, Socket for Morse Taper.....each	1.75	2.00	2.25	2.50	2.50	2.50	2.50
Price, Square Shank Sleeves.....each	1.00	1.25	1.25	1.50	1.50	1.50	1.50

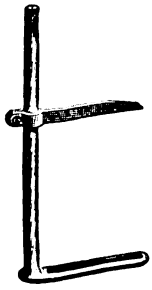

FIG. 2732.

Drilling Post or Old Man.

Number	1	2
Height and Diameter of Posts.....inches	20 x $1\frac{1}{16}$	26 x $1\frac{1}{16}$
Radius of Arms.....inches	10	12
Price.....each	8.00	10.00

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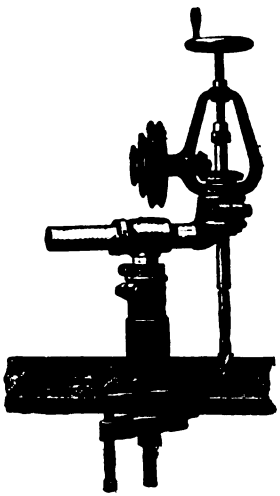

FIG. 2733.
No. A.

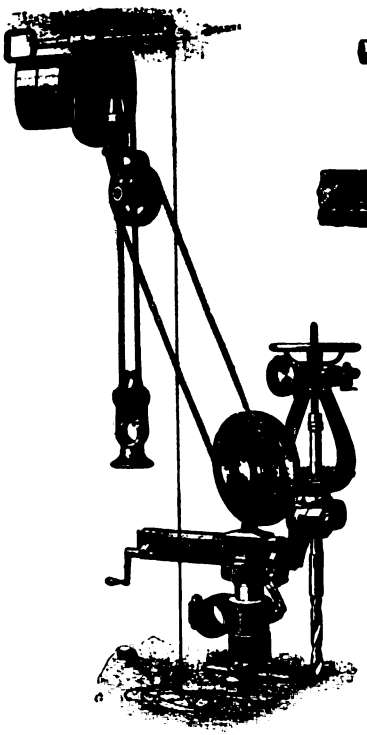

FIG. 2734.
No. 3.

Numbers, 1, 2, 3, 4 and 5 have base as shown in Fig. 2734, also Split Bearing on side for horizontal drilling.

Number B has base same as Fig. 2734, but without Split Bearing on side.

Numbers 3, 4, and 5 have Automatic Feed.

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Number.	Will Drill up to a Diameter of, Inches.	Greatest Distance from Spindle to Center of Post, Inches.	Vertical Adjustment of Post, Inches.	Spindle Traverse, Inches.	Will Drill Over a Surface at One Setting, Diameter, Inches.		Angle at which Spindle can be Set Up to, Degrees.	Morse Taper Socket, in Spindle, Number.	Speed of Countershaft, Revolutions.	Diameter of Tight and Loose Pulleys, Inches.	Width of Belt, Inches.
					Outside	Inside					
A	$\frac{3}{4}$	12	5	4	24	9	Any Angle	2	200	9	$2\frac{1}{2}$
B	1	$16\frac{1}{2}$	5	$5\frac{1}{2}$	33	11	Any Angle	3	200	10	3
1	1	$16\frac{1}{2}$	5	$5\frac{1}{2}$	33	11	30	3	200	10	3
2	$1\frac{1}{2}$	$21\frac{1}{2}$	6	$5\frac{1}{2}$	43	13	30	4	200	10	3
3	2	$21\frac{1}{2}$	6	8	43	13	30	4	200	10	3
4	3	28	6	13	56	16	.....	4	200	10	3
5	any	36	8	22	72	$22\frac{1}{2}$	.....	5	150	16	$3\frac{1}{2}$

Number.	Weight, Pounds.	Weight, Complete, Boxed, Pounds.	Price, Each.	Price, Countershaft, Each.	Price, Complete with 100 Feet Hemp or Cotton Rope and 3 Pairs Couplings, Each.	Price, Complete with 100 Feet Rawhide Rope and 3 Pairs Couplings, Each.	Price, Hemp or Cotton Rope, Per Foot.	Price, Rawhide Rope, Per Foot.	Price, Steel Couplings, Per Pair.	Diameter of Rope and Couplings, Suitable, Inches.	
A	75	225	85.00	30.00	120.00	135.00	.05	.20	.50		.....
B	110	380	95.00	35.00	137.00	155.00	.07	.25	.60		.....
1	130	400	130.00	35.00	172.00	190.00	.07	.25	.60		.....
2	250	550	165.00	35.00	207.00	225.00	.07	.25	.60		.....
3	285	625	195.00	35.00	237.00	255.00	.07	.25	.60		.....
4	400	750	265.00	35.00	307.00	325.00	.07	.25	.60		.....
5	900	1400	450.00	55.00	514.00	538.00	.09	.33	.90		.....

These Drills will operate in any angle, position, distance or direction from the power. Fig. 2734 shows the manner in which the power is applied; the countershaft is bolted to a convenient place, receives the power from the line shaft, the frame carrying the idlers rotates on a hollow stud through which the round belt passes to the grooved driving pulley. The rotation of this frame permits the belt to be led to the Drill in any direction, radially, from the countershaft, while the rise and fall of the weighted idler permits it to be led to any point within the scope of this rise and fall—say 10 to 15 feet or more. By inserting sections of belt by means of the hook couplings any distance can be reached.

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RATCHET NUT WRENCH.

FIG. 2735.

Number	1	2	3	4	5
Length ..... inches	7	8	10	13	16
For Nuts ..... inches	3/16 and 1/4	5/16 and 3/8	7/16 and 1/2	5/8 and 3/4	7/8 and 1
Price ..... each	.75	1.00	1.25	2.00	3.00

REVERSIBLE SOCKET WRENCH.

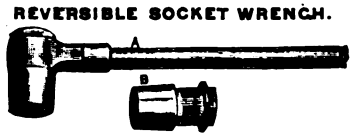

FIG. 2736.

Number	1	2	3	4	4	4
Handle ..... inches	10	14	16	18, 20, 22	24	28
For Nuts up to, Bolts ..... inches	5/8	7/8	1 1/8	1 1/4	1 1/2	1 1/2
Price, with One Socket ..... each	4.50	5.25	6.00	7.00	7.50	8.00
Price, Extra Sockets .. .. each	1.00	1.25	1.50	2.00	2.00	2.00

REVERSIBLE RATCHET TAP WRENCH OR STUD DRIVER.

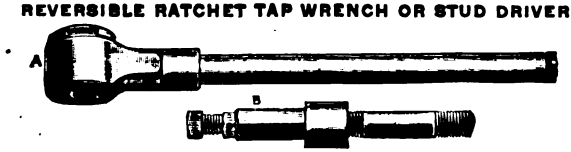

FIG. 2737.

Number	1	2	3	4	4	4
Handle ..... inches	10	14	16	18, 22	24	28
For Studs up to ..... inches	5/8	7/8	1 1/8	1 1/4	1 1/2	1 1/2
Price ..... each	4.25	5.00	5.75	6.50	7.00	7.50
Price, Holders ..... each	3.50	4.00	4.50	5.00	5.00	5.00
Price, Stud Sockets and Nuts ..... each	.75	1.00	1.25	1.50	1.50	1.50

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FAVORITE REVERSIBLE RATCHET WRENCHES.

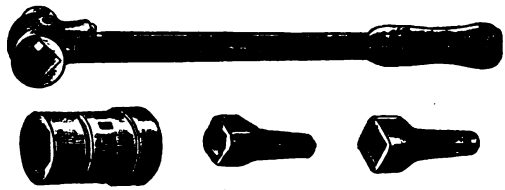

FIG. 2738.

Price of Wrenches.

Wrench, Number.	Length of Handle, Inches.	Take, Heads.	Head Sent Unless Otherwise Specified.	Price, Handle, and One Head.
1	15	A B C	A	4.50
2	28	E F G	E	5.50
2½	28	X Y Z	X	6.50
3	28	H K L	H	7.50

Two extra heavy extension sockets (fitting hexagon opening of E head) 10 inches long for ¾ inch Square and U. S. Standard Nuts.

Per Set.....	1.00

No. 0 Wrench and Attachments

	Japanned	Nickel Plated.
One 15 in. Handle and one Head with openings for ¼ and ⅜ in. square U. S. Standard Nuts.....	4.00	6.00
One set of Sockets to fit Head, consisting of one 8 in. Extension Socket, Ten Sockets to fit U. S. Standard Nuts (1 each) Square and Hexagon, ⅜, $\frac{7}{16}$, ½, ⅝, ¾ in	3.00	4.00
One 15 in. Handle with Drill Head.....	7.50	9.50
Drill Head only	6.00	8.00

Length A to B, 7 in. for Square Shank Drills only.

Price of Wrench Heads.

SHOWING HEADS THAT HAVE SQUARE AND HEXAGON OPENINGS, AND THOSE HAVING HEXAGON OPENINGS ONLY.

Head.	Openings for U. S. Standard Nuts, Inches.		Exact Size of Openings, Inches.		Price, Each,	Fit Handles, Number.
	Square.	Hexagon.	Square.	Hexagon.		
O	¼ x ⅜	.....	$\frac{9}{16}$ x ¾	.....	2.00	0
A	½	½	$\frac{15}{16}$	$\frac{15}{16}$	2.50	1
B	⅝	⅝	1 ⅛	1 ⅛	2.50	1
C	.....	⅝ x ¾	.....	1⅛ x $1\frac{5}{16}$	2.50	1
E	¾	¾	$1\frac{5}{16}$	$1\frac{5}{16}$	3.00	2
F	⅞	⅞	1 ½	1 ½	3.00	2
G	.....	⅞ x 1	.....	1½ x $1\frac{1}{16}$	3.00	2
*X	⅞	*¾	$1\frac{5}{32}$	$1\frac{3}{32}$	3.00	2½
*Y	1	1⅛	$1\frac{3}{32}$	$1\frac{3}{16}$	3.00	2½
Z	.....	1⅛ x 1¼	.....	1⅞ x $2\frac{1}{16}$	3.00	2½
H	1	1	$1\frac{1}{16}$	$1\frac{1}{16}$	4.00	3
K	1⅛	1⅛	1 ⅞	1 ⅞	4.00	3
L	1¼	1¼	$2\frac{1}{16}$	$2\frac{1}{16}$	4.00	3
D	.....	¾ x ⅞	.....	$1\frac{5}{16}$ x 1½	3.00	3
M	.....	1 x 1⅛	.....	$1\frac{1}{16}$ x 1⅞	3.00	2

* X and X Heads made to fit special nuts of the N. Y. Central & Hudson River R. R.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

ENGINEERS' WRENCHES.

SINGLE HEAD.

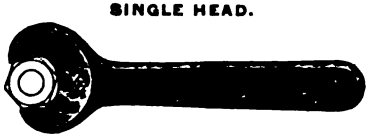

FIG. 2739.

DOUBLE HEAD.

FIG. 2740.

Engineers' Wrenches, Single Head.

Number.	For U. S. Standard Nuts; Size Bolts, Inches.	Openings Finished, Inches.	Extreme Length, Inches.	Thickness, Heads, Inches.	Price, Unfinished Each.	Price, Semi-Finished, Each.	Price, Finished, Each.
00	$\frac{1}{8}$	$\frac{5}{16}$	$2\frac{1}{2}$	$\frac{3}{16}$	.08	.12	.16
0	$\frac{5}{16}$	$\frac{3}{8}$	$2\frac{7}{8}$	$\frac{7}{32}$	.09	.13	.18
1	$\frac{1}{4}$	$\frac{1}{2}$	$3\frac{3}{4}$	$\frac{1}{4}$	.10	.15	.20
2	$\frac{5}{16}$	$\frac{9}{32}$	$4\frac{3}{8}$	$\frac{9}{32}$	.12	.18	.24
3	$\frac{3}{8}$	$\frac{11}{16}$	$5\frac{3}{8}$	$\frac{5}{16}$	.14	.21	.28
4	$\frac{7}{16}$	$\frac{13}{32}$	$6\frac{1}{2}$	$\frac{11}{32}$	.17	.25	.34
5	$\frac{1}{2}$	$\frac{7}{8}$	$7\frac{1}{8}$	$\frac{25}{64}$	.20	.30	.40
6	$\frac{9}{16}$	$\frac{31}{32}$	$8\frac{7}{8}$	$\frac{7}{16}$	.25	.38	.50
7	$\frac{5}{8}$	$1\frac{1}{16}$	$9\frac{1}{4}$	$\frac{29}{64}$	.32	.48	.64
8	$\frac{3}{4}$	$1\frac{1}{4}$	$11\frac{3}{8}$	$\frac{9}{16}$	.40	.60	.80
9	$\frac{7}{8}$	$1\frac{7}{16}$	13	$\frac{21}{32}$	.50	.75	1.00
10	1	$1\frac{5}{8}$	$14\frac{7}{8}$	$\frac{3}{4}$	.65	.98	1.30
11	$1\frac{1}{8}$	$1\frac{13}{16}$	$16\frac{5}{8}$	$\frac{53}{64}$	.85	1.28	1.70
12	$1\frac{1}{4}$	2	$18\frac{1}{2}$	$\frac{29}{32}$	1.10	1.65	2.20
13	$1\frac{3}{8}$	$2\frac{3}{16}$	$20\frac{1}{4}$	$\frac{61}{64}$	1.40	2.10	2.80
14	$1\frac{1}{2}$	$2\frac{3}{8}$	$22\frac{1}{4}$	$1\frac{1}{16}$	1.75	2.63	3.50
15	$1\frac{5}{8}$	$2\frac{9}{16}$	24	$1\frac{1}{8}$	2.10	3.15	4.20
16	$1\frac{3}{4}$	$2\frac{3}{4}$	$25\frac{3}{4}$	$1\frac{7}{32}$	2.50	3.75	5.00
$16\frac{1}{2}$	$1\frac{7}{8}$	$2\frac{15}{16}$	$25\frac{3}{4}$	$1\frac{7}{32}$	2.50	3.75	5.00
17	2	$3\frac{1}{8}$	$29\frac{1}{2}$	$1\frac{3}{16}$	3.50	5.25	7.00
18	$2\frac{1}{4}$	$3\frac{1}{2}$	33	$1\frac{7}{32}$	4.75	7.13	9.50
19	$2\frac{1}{2}$	$3\frac{7}{8}$	37	$1\frac{9}{32}$	6.60	9.75	13.00
$19\frac{1}{2}$	$2\frac{3}{4}$	$4\frac{1}{4}$	37	$1\frac{9}{32}$	6.50	9.75	13.00
20	3	$4\frac{5}{8}$	44	$1\frac{5}{16}$	10.50	15.75	21.00
$20\frac{1}{2}$	$3\frac{1}{2}$	$5\frac{3}{8}$	44	$1\frac{5}{16}$	10.50	15.75	21.00

The following Semi-Finished and Finished Wrenches have hole drilled in end of handle.

Number	17	18	19	$19\frac{1}{2}$	20	$20\frac{1}{2}$
Diameter Hole.....inches	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	$\frac{7}{8}$	1	1

Unfinished Wrenches have Milled Openings.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

ENGINEERS' WRENCHES, DOUBLE HEAD.

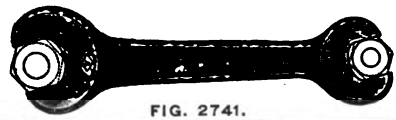

FIG. 2741.

Number.	For U.S. Standard Nuts; Size Bolts, Inches.	Openings, Finished, Inches.	Extreme Length, Inches.	Thickness Heads, Inches.	Price, Unfinished Each.	Price, Semi-finished, Each.	Price, Finished, Each.
21	1/8 and 3/16	5/16 and 13/32	3 1/4	13/64 and 7/32	.12	.18	.24
22	1/8 and 1/4	5/16 and 1/2	4	13/64 and 1/4	.14	.21	.28
23	3/16 and 1/4	13/32 and 7/16	4	7/32 and 1/4	.15	.23	.30
24	3/16 and 5/16	13/32 and 19/32	4 7/8	7/32 and 9/32	.17	.25	.34
25	1/4 and 5/16	1/2 and 19/32	4 7/8	1/4 and 9/32	.18	.27	.36
26	1/4 and 3/8	1/2 and 11/16	5 7/8	1/4 and 5/16	.20	.30	.40
27	5/16 and 3/8	19/32 and 11/16	5 7/8	9/32 and 5/16	.21	.32	.42
28	5/16 and 7/16	19/32 and 25/32	6 7/8	9/32 and 11/32	.23	.35	.46
29	3/8 and 7/16	11/16 and 25/32	6 7/8	5/16 and 11/32	.25	.38	.50
30	3/8 and 1/2	11/16 and 7/8	7 3/4	5/16 and 13/32	.28	.42	.56
31	7/16 and 1/2	25/32 and 7/8	7 3/4	11/32 and 29/64	.30	.45	.60
32	7/16 and 9/16	25/32 and 31/32	8 3/4	11/32 and 15/64	.34	.51	.68
33	1/2 and 9/16	7/8 and 31/32	8 3/4	25/64 and 7/16	.36	.54	.72
34	1/2 and 5/8	7/8 and 1 1/16	9 3/4	29/64 and 33/64	.41	.61	.82
35	9/16 and 5/8	31/32 and 1 1/16	9 3/4	7/16 and 31/64	.43	.65	.86
36	9/16 and 3/4	31/32 and 1 1/4	11 5/8	7/16 and 9/16	.50	.75	1.00
37	5/8 and 3/4	1 1/16 and 1 1/4	11 5/8	31/64 and 9/16	.53	.80	1.06
38	5/8 and 7/8	1 1/16 and 1 7/16	13 1/2	31/64 and 21/32	.62	.93	1.24
39	3/4 and 7/8	1 1/4 and 1 7/16	13 1/2	9/16 and 21/32	.65	.98	1.30
40	3/4 and 1	1 1/4 and 1 5/8	15 1/2	9/16 and 3/4	.78	1.17	1.56
41	7/8 and 1	1 7/16 and 1 5/8	15 1/2	21/32 and 3/4	.82	1.23	1.64
42	7/8 and 1 1/8	1 7/16 and 1 13/16	17 3/8	21/32 and 53/64	1.00	1.50	2.00
43	1 and 1 1/8	1 5/8 and 1 13/16	17 3/8	3/4 and 53/64	1.08	1.62	2.16
44	1 and 1 1/4	1 5/8 and 2	19 3/8	3/4 and 29/32	1.27	1.91	2.54
45	1 1/8 and 1 1/4	1 13/16 and 2	19 3/8	53/64 and 29/32	1.35	2.03	2.70
46	1 1/8 and 1 3/8	1 13/16 and 2 3/16	21 1/4	53/64 and 61/64	1.65	2.48	3.30
47	1 1/4 and 1 3/8	2 and 2 3/16	21 1/4	29/32 and 61/64	1.75	2.63	3.50
48	1 1/4 and 1 1/2	2 and 2 3/8	23 1/4	29/32 and 1 1/16	2.10	3.15	4.20
49	1 3/8 and 1 1/2	2 3/16 and 2 3/8	23 1/4	61/64 and 1 1/16	2.25	3.38	4.50
50	1 3/8 and 1 5/8	2 3/16 and 2 9/16	25 1/8	61/64 and 1 1/8	2.65	3.98	5.30
51	1 1/2 and 1 5/8	2 3/8 and 2 9/16	25 1/8	1 1/16 and 1 1/8	2.85	4.28	5.70
52	1 1/2 and 1 3/4	2 3/8 and 2 3/4	27 1/8	1 1/16 and 1 7/32	3.30	4.95	6.60
53	1 5/8 and 1 3/4	2 9/16 and 2 3/4	27 1/8	1 1/8 and 1 7/32	3.55	5.33	7.10
53½	1 5/8 and 1 7/8	2 9/16 and 2 15/16	27 1/8	1 1/8 and 1 7/32	3.55	5.33	7.10
54	1 5/8 and 2	2 9/16 and 3 1/4	30 7/8	1 1/8 and 1 3/8	4.15	6.23	8.30
55	1 3/4 and 2	2 3/4 and 3 1/8	30 7/8	1 7/32 and 1 3/8	4.55	6.83	9.10
55½	1 7/8 and 2	2 15/16 and 3 1/4	30 7/8	1 7/32 and 1 3/8	4.55	6.83	9.10
56	1 3/4 and 2 1/4	2 3/4 and 3 5/16	34 5/8	1 7/32 and 1 7/32	5.45	8.18	10.90
56½	1 7/8 and 2 1/4	2 15/16 and 3 5/16	34 5/8	1 7/32 and 1 7/32	5.45	8.18	10.90
57	2 and 2 1/4	3 1/8 and 3 5/16	34 5/8	1 3/8 and 1 7/32	6.15	9.23	12.30
57½	2 and 2 1/2	3 1/8 and 3 7/8	34 5/8	1 3/8 and 1 7/32	6.15	9.23	12.30
58	2 1/4 and 2 1/2	3 1/2 and 3 7/8	34 5/8	1 3/8 and 1 11/32	6.15	9.23	12.30
59	2 1/4 and 2 3/4	3 1/2 and 4 1/4	39	1 17/32 and 1 5/8	8.45	12.68	16.90
60	2 1/2 and 2 3/4	3 7/8 and 4 1/4	39	1 5/8 and 1 5/8	9.75	14.63	19.50
61	2 1/2 and 3	3 7/8 and 4 5/8	46	1 5/8 and 1 7/8	13.25	19.88	26.50
62	2 3/4 and 3	4 1/4 and 4 5/8	46	1 5/8 and 1 7/8	13.25	19.88	26.50
63	2 3/4 and 3 1/2	4 1/4 and 5 3/8	46	1 5/8 and 1 7/8	13.25	19.88	26.50
64	3 and 3 1/2	4 5/8 and 5 3/8	46	1 7/8 and 1 7/8	15.75	23.63	31.50

Unfinished Wrenches have milled openings

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WRENCHES.

SET SCREW WRENCH, SINGLE HEAD.

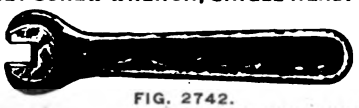

FIG. 2742.

BOX WRENCH, SINGLE HEAD.

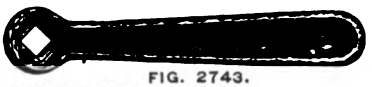

FIG. 2743.

TOOL POST WRENCH, DOUBLE HEAD.

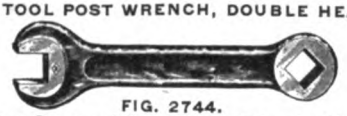

FIG. 2744.

Set Screw Wrenches, Single Head.

Number.	For Set-Screw, Inches.	Extreme Length, Inches.	Thickness Head, Inches.	Price, Unfinished, Each.	Price, Semi-Finished, Each.	Price, Finished, Each.
92	3/16	3	3/16	.08	.12	.16
93	1/4	3 5/8	1/4	.10	.15	.20
94	5/16	4 1/2	5/16	.12	.18	.24
95	3/8	5 1/8	11/32	.15	.23	.30
96	7/16	6 1/4	3/8	.20	.30	.40
97	1/2	7	7/16	.25	.38	.50
98	9/16	7 1/2	1/2	.27	.41	.54
99	5/8	8	9/16	.30	.45	.60
100	3/4	9 1/4	5/8	.35	.53	.70
101	7/8	10 1/2	11/16	.42	.63	.84
102	1	11 1/2	3/4	.50	.75	1.00
103	1 1/8	12	13/16	.60	.90	1.20

Unfinished Wrenches have Milled Openings.

Box Wrenches, Single Head.

107	3/16	3	1/4	.09	.12	.18
108	1/4	3 3/8	9/32	.10	.15	.20
109	5/16	3 3/4	5/16	.11	.17	.22
110	3/8	4 1/4	3/8	.13	.20	.26
111	7/16	4 7/8	7/16	.16	.24	.32
112	1/2	5 1/2	15/32	.19	.28	.38
113	9/16	6 1/4	1/2	.22	.33	.44
114	5/8	7	9/16	.26	.39	.52
115	3/4	8	5/8	.30	.45	.60
116	7/8	9	11/16	.36	.54	.72
117	1	10	3/4	.44	.66	.88

Unfinished Wrenches have Broached Openings.

Tool Post Wrenches, Single Head.

Number.	Open End for Set Screws, Inches.	Closed End for Set Screws, Inches.	Extreme Length, Inches.	Price, Unfinished, Each.	Price, Semi-Finished, Each.	Price, Finished, Each.
152	7/16	7/16	5 1/2	.21	.32	.42
154	1/2	1/2	6	.23	.35	.46
156	9/16	1/2	6	.23	.35	.46
157	9/16	9/16	6	.23	.35	.46
158	5/8	5/8	6 3/4	.30	.45	.60
160	11/16	5/8	6 3/4	.30	.45	.60
161	11/16	11/16	6 3/4	.30	.45	.60
162	3/4	3/4	7 1/2	.35	.52	.70

Unfinished Wrenches have Openings Milled and Holes Broached.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1000

SINGLE HEAD SOCKET WRENCHES, SQUARE OPENINGS.

With or Without Handles.

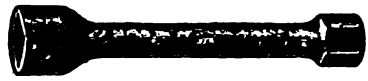

FIG. 2745.

Number.	SQUARE OPENINGS. U.S. Standard Nuts; Bolts, Inches.	Cap Screws, Inches.	Set Screws, Inches.	Short Diameter, Finished Opening, Inches.	Extreme Length, Inches.	Diameter of Head, Inches.	Diameter of Shank. Inches.	Hex. End; Same Size U.S. Nut, Bolts, Inches.	PRICE, UNFINISHED. Without Pin Handle, Each.	With Pin Handle, Each.	PRICE, SEMI-FINISHED. Without Pin Handle, Each.	With Pin Handle, Each.	PRICE, FINISHED, Without Pin Handle, Each.	With Pin Handle, Each.
321 B	.....	.....	$\frac{1}{4}$	$\frac{17}{64}$	4	$\frac{1}{2}$	$\frac{5}{16}$	$\frac{3}{16}$	.20	.30	.30	.40	.40	.50
322 D	.....	.....	$\frac{5}{16}$	$\frac{21}{64}$	$4\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{8}$	$\frac{1}{4}$	.23	.35	.35	.47	.46	.58
323 B	.....	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{25}{64}$	$5\frac{3}{16}$	$\frac{3}{4}$	$\frac{7}{16}$	$\frac{5}{16}$	.26	.40	.39	.53	.52	.66
324 C	.....	$\frac{5}{16}$	$\frac{7}{16}$	$\frac{29}{64}$	$5\frac{3}{4}$	$\frac{7}{8}$	$\frac{1}{2}$	$\frac{3}{8}$	.31	.45	.46	.60	.62	.76
325 D	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{33}{64}$	$6\frac{3}{8}$	$1\frac{1}{16}$	$\frac{9}{16}$	$\frac{3}{8}$	.36	.52	.54	.70	.72	.88
325 E	.....	$\frac{7}{16}$	$\frac{9}{16}$	$\frac{37}{64}$	$6\frac{3}{8}$	$1\frac{1}{16}$	$\frac{9}{16}$	$\frac{3}{8}$	.36	.52	.54	.70	.72	.88
326 D	$\frac{5}{16}$	.....	.....	$\frac{39}{64}$	$7\frac{1}{16}$	$1\frac{9}{32}$	$\frac{5}{8}$	$\frac{1}{2}$	.43	.61	.65	.83	.86	1.04
326 E	.....	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{41}{64}$	$7\frac{1}{16}$	$1\frac{9}{32}$	$\frac{5}{8}$	$\frac{1}{2}$	.43	.61	.65	.83	.86	1.04
326 F	$\frac{3}{8}$	$\frac{9}{16}$	.....	$\frac{45}{64}$	$7\frac{1}{16}$	$1\frac{9}{32}$	$\frac{5}{8}$	$\frac{1}{2}$	.43	.61	.65	.83	.86	1.04
327 C	.....	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{49}{64}$	$7\frac{5}{8}$	$1\frac{1}{2}$	$1\frac{1}{16}$	$\frac{9}{16}$	.52	.72	.78	.98	1.04	1.24
327 D	$\frac{7}{16}$	.....	.....	$\frac{51}{64}$	$7\frac{5}{8}$	$1\frac{1}{2}$	$1\frac{1}{16}$	$1\frac{9}{16}$	.52	.72	.78	.98	1.04	1.24
328 C	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{7}{8}$	$\frac{57}{64}$	$8\frac{1}{4}$	$1\frac{21}{32}$	$\frac{3}{4}$	$\frac{5}{8}$	.64	.84	.96	1.16	1.28	1.48
329 B	$\frac{9}{16}$	.....	.....	$\frac{63}{64}$	$8\frac{7}{8}$	$1\frac{7}{8}$	$\frac{7}{8}$	$\frac{3}{4}$	.80	1.05	1.20	1.45	1.60	1.85
329 C	.....	.....	1	$1\frac{1}{64}$	$8\frac{7}{8}$	$1\frac{7}{8}$	$\frac{7}{8}$	$\frac{3}{4}$	.80	1.05	1.20	1.45	1.60	1.85
329 D	$\frac{5}{8}$	.....	.....	$1\frac{5}{64}$	$8\frac{7}{8}$	$1\frac{7}{8}$	$\frac{7}{8}$	$\frac{3}{4}$	.80	1.05	1.20	1.45	1.60	1.85
330 D	.....	$\frac{7}{8}$	$1\frac{1}{8}$	$1\frac{5}{32}$	$9\frac{3}{4}$	$2\frac{3}{16}$	1	$\frac{7}{8}$	1.00	1.30	1.50	1.80	2.00	2.30
330 E	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{9}{32}$	$9\frac{3}{4}$	$2\frac{3}{16}$	1	$\frac{7}{8}$	1.00	1.30	1.50	1.80	2.00	2.30
331 C	.....	$1\frac{1}{8}$	.....	$1\frac{13}{32}$	$10\frac{5}{8}$	$2\frac{1}{2}$	$1\frac{1}{8}$	1	1.30	1.70	1.95	2.35	2.60	3.00
331 D	$\frac{7}{8}$	.....	.....	$1\frac{15}{32}$	$10\frac{5}{8}$	$2\frac{1}{2}$	$1\frac{1}{8}$	1	1.30	1.70	1.95	2.35	2.60	3.00
332 B	.....	$1\frac{1}{4}$	. ...	$1\frac{17}{32}$	$11\frac{1}{2}$	$2\frac{13}{16}$	$1\frac{1}{4}$	$1\frac{1}{4}$	1.90	2.40	2.85	3.35	3.80	4.30
332 C	1	$1\frac{3}{8}$	.....	$1\frac{21}{32}$	$11\frac{1}{2}$	$2\frac{13}{16}$	$1\frac{1}{4}$	$1\frac{1}{4}$	1.90	2.40	2.85	3.35	3.80	4.30
333 C	$1\frac{1}{8}$	.....	.....	$1\frac{27}{32}$	$12\frac{1}{2}$	$3\frac{3}{8}$	$1\frac{3}{8}$	$1\frac{1}{2}$	2.80	3.45	4.20	4.85	5.60	6.25
333 D	$1\frac{1}{4}$	....	.....	$2\frac{1}{32}$	$12\frac{1}{2}$	$3\frac{3}{8}$	$1\frac{3}{8}$	$1\frac{1}{2}$	2.80	3.45	4.20	4.85	5.60	6.25

Unfinished Wrenches have openings broached.

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THE W. M. PATTISON SUPPLY CO. 1001 CLEVELAND

SINGLE HEAD SOCKET WRENCHES, HEXAGON OPENINGS.

With or Without Handles.

FIG. 2746.

Number.	HEXAGON OPENINGS. U. S. Standard Nuts; Bolts, Inches.	Cap Screws, Inches.	Short Diameter Finished Opening, Inches.	Extreme Length, Inches.	Diameter of Head, Inches.	Diameter of Shank, Inches.	Hex. End; Same Size U.S. Nut, Bolts, Inches.	PRICE, UNFINISHED. Without Pin Handle, Handle, Each.	With Pin Handle, Each.	PRICE, SEMI-FINISHED. Without Pin Handle, Handle, Each.	With Pin Handle, Each.	PRICE, FINISHED. Without Pin Handle, Handle, Each.	With Pin Handle, Each.
321 A	$\frac{1}{8}$	.....	$\frac{21}{64}$	4	$\frac{1}{2}$	$\frac{5}{16}$	$\frac{3}{16}$	.20	.30	.30	.40	.40	.50
322 A	.....	$\frac{3}{16}$	$\frac{29}{64}$	4	$\frac{1}{2}$	$\frac{5}{16}$	$\frac{3}{16}$	.23	.35	.35	.47	.46	.58
322 B	$\frac{3}{16}$	.....	$\frac{29}{64}$	4	$\frac{1}{2}$	$\frac{5}{16}$	$\frac{3}{16}$	.23	.35	.35	.47	.46	.58
322 C	.....	$\frac{3}{16}$	$\frac{29}{64}$	4	$\frac{1}{2}$	$\frac{5}{16}$	$\frac{3}{16}$	.23	.35	.35	.47	.46	.58
323 A	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{37}{64}$	$5\frac{1}{16}$	$\frac{9}{16}$	$\frac{3}{8}$	$\frac{1}{4}$	.26	.40	.39	.53	.52	.66
324 A	.....	$\frac{5}{16}$	$\frac{37}{64}$	$5\frac{1}{16}$	$\frac{9}{16}$	$\frac{3}{8}$	$\frac{1}{4}$	.31	.45	.46	.60	.62	.76
324 B	$\frac{5}{16}$	.....	$\frac{37}{64}$	$5\frac{1}{16}$	$\frac{9}{16}$	$\frac{3}{8}$	$\frac{1}{4}$	.31	.45	.46	.60	.62	.76
325 A	.....	$\frac{7}{16}$	$\frac{45}{64}$	6	$\frac{11}{16}$	$\frac{7}{16}$	$\frac{5}{16}$	.36	.52	.54	.70	.72	.88
325 B	$\frac{3}{8}$	.....	$\frac{45}{64}$	6	$\frac{11}{16}$	$\frac{7}{16}$	$\frac{5}{16}$	.36	.52	.54	.70	.72	.88
325 C	.....	$\frac{3}{8}$	$\frac{45}{64}$	6	$\frac{11}{16}$	$\frac{7}{16}$	$\frac{5}{16}$	.36	.52	.54	.70	.72	.88
326 A	$\frac{7}{16}$	.....	$\frac{53}{64}$	$7\frac{1}{16}$	$\frac{13}{16}$	$\frac{1}{2}$	$\frac{3}{8}$	.43	.61	.65	.83	.86	1.04
326 B	.....	$\frac{9}{16}$	$\frac{53}{64}$	$7\frac{1}{16}$	$\frac{13}{16}$	$\frac{1}{2}$	$\frac{3}{8}$	.43	.61	.65	.83	.86	1.04
326 C	$\frac{7}{16}$	.....	$\frac{53}{64}$	$7\frac{1}{16}$	$\frac{13}{16}$	$\frac{1}{2}$	$\frac{3}{8}$	.43	.61	.65	.83	.86	1.04
327 A	.....	$\frac{5}{8}$	$\frac{61}{64}$	7	$\frac{7}{8}$	$\frac{9}{16}$	$\frac{7}{16}$	.52	.72	.78	.98	1.04	1.24
327 B	.....	$1\frac{1}{16}$	$\frac{61}{64}$	7	$\frac{7}{8}$	$\frac{9}{16}$	$\frac{7}{16}$	.52	.72	.78	.98	1.04	1.24
328 A	$\frac{1}{2}$	$1\frac{5}{64}$	$\frac{69}{64}$	$8\frac{1}{16}$	$1\frac{1}{16}$	$\frac{5}{8}$	$\frac{1}{2}$	.64	.84	.96	1.16	1.28	1.48
328 B	.....	$1\frac{5}{32}$	$\frac{69}{64}$	$8\frac{1}{16}$	$1\frac{1}{16}$	$\frac{5}{8}$	$\frac{1}{2}$	.64	.84	.96	1.16	1.28	1.48
329 A	$\frac{9}{16}$	1	$1\frac{9}{64}$	$8\frac{7}{16}$	$1\frac{7}{16}$	$\frac{3}{4}$	$\frac{5}{8}$	.80	1.05	1.20	1.45	1.60	1.85
330 A	.....	$1\frac{1}{8}$	$1\frac{13}{64}$	9	$2\frac{3}{16}$	1	$\frac{3}{4}$	1.00	1.30	1.50	1.80	2.00	2.30
330 B	$\frac{9}{16}$	.....	$1\frac{13}{64}$	9	$2\frac{3}{16}$	1	$\frac{3}{4}$	1.00	1.30	1.50	1.80	2.00	2.30
330 C	.....	$1\frac{1}{4}$	$1\frac{13}{64}$	9	$2\frac{3}{16}$	1	$\frac{3}{4}$	1.00	1.30	1.50	1.80	2.00	2.30
331 A	1	.....	$1\frac{21}{64}$	10	$2\frac{7}{16}$	$1\frac{1}{4}$	1	1.30	1.70	1.95	2.35	2.60	3.00
331 B	$1\frac{1}{8}$	.....	$1\frac{21}{64}$	10	$2\frac{7}{16}$	$1\frac{1}{4}$	1	1.30	1.70	1.95	2.35	2.60	3.00
332 A	$1\frac{1}{4}$	.....	$2\frac{1}{64}$	11	$2\frac{13}{16}$	$1\frac{1}{4}$	$1\frac{1}{4}$	1.90	2.40	2.85	3.35	3.80	4.30
333 A	$1\frac{3}{8}$	.....	$2\frac{7}{64}$	12	$3\frac{1}{16}$	$1\frac{1}{4}$	$1\frac{1}{4}$	2.80	3.45	4.20	4.85	5.60	6.25
333 B	$1\frac{1}{2}$	.....	$2\frac{7}{64}$	12	$3\frac{1}{16}$	$1\frac{1}{4}$	$1\frac{1}{4}$	2.80	3.45	4.20	4.85	5.60	6.25

Unfinished Wrenches have openings broached.

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THE W. M. PATTISON SUPPLY CO. 1002 CLEVELAND

WRENCHES,

Straight Flat Handle Wrenches, Unfinished.

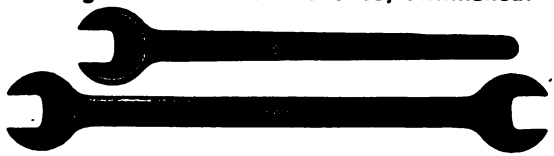
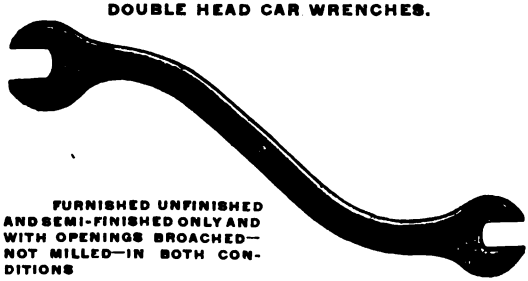


FIG. 2747.

Number.	Kind.	Outside Diameter of Nuts, Inches.	Openings, Unfinished, Inches.	Extreme Length, Inches.	Thickness Head, Inches.	Price, Unfinished, Each.
173	Single Head	$1\frac{3}{16}$	$1\frac{1}{4}$	23	$\frac{3}{4}$	.60
174	Single Head	$1\frac{1}{4}$	$1\frac{5}{16}$	23	$\frac{3}{4}$	.60
175	Single Head	$1\frac{3}{8}$	$1\frac{7}{16}$	23	$\frac{3}{4}$	.60
176	Single Head	$1\frac{1}{2}$	$1\frac{9}{16}$	23	$\frac{3}{4}$	.60
182	Double Head	$1\frac{3}{16}$ and $1\frac{1}{4}$	$1\frac{1}{4}$ and $1\frac{5}{16}$	24	$\frac{3}{4}$	.90
184	Double Head	$1\frac{1}{4}$ and $1\frac{3}{8}$	$1\frac{5}{16}$ and $1\frac{7}{16}$	24	$\frac{3}{4}$	.90
186	Double Head	$1\frac{1}{4}$ and $1\frac{1}{2}$	$1\frac{5}{16}$ and $1\frac{9}{16}$	24	$\frac{3}{4}$	.90
188	Double Head	$1\frac{3}{8}$ and $1\frac{1}{2}$	$1\frac{7}{16}$ and $1\frac{9}{16}$	24	$\frac{3}{4}$	.90

DOUBLE HEAD CAR WRENCHES.



FURNISHED UNFINISHED AND SEMI-FINISHED ONLY AND WITH OPENINGS BROACHED—NOT MILLED—IN BOTH CONDITIONS

FIG. 2748.

Number.	For U. S. Standard Nuts; Size Bolts, Inches.	Openings, Inches.	Extreme Length, Inches.	Thickness Heads, Inches.	Price, Unfinished, Each.	Price, Semi-finished, Each.
367	$\frac{3}{8}$ and $\frac{1}{2}$	$\frac{23}{32}$ and $\frac{29}{32}$	12	$\frac{7}{16}$ and $\frac{1}{2}$	.50	.76
370	$\frac{1}{2}$ and $\frac{5}{8}$	$\frac{15}{16}$ and $1\frac{1}{8}$	19	$\frac{1}{2}$ and $\frac{1}{2}$	.85	1.28
371	$\frac{1}{2}$ and $\frac{3}{4}$	$\frac{15}{16}$ and $1\frac{5}{16}$	19	$\frac{1}{2}$ and $\frac{1}{2}$	.85	1.28
372	$\frac{1}{2}$ and $\frac{7}{8}$	$\frac{15}{16}$ and $1\frac{1}{2}$	20	$\frac{1}{2}$ and $\frac{1}{2}$	.92	1.38
373	$\frac{5}{8}$ and $\frac{3}{4}$	$1\frac{1}{8}$ and $1\frac{5}{16}$	20	$\frac{1}{2}$ and $\frac{1}{2}$	.92	1.38
374	$\frac{5}{8}$ and $\frac{7}{8}$	$1\frac{1}{8}$ and $1\frac{1}{2}$	21	$\frac{1}{2}$ and $\frac{1}{2}$	1.00	1.50
375	$\frac{5}{8}$ and 1	$1\frac{1}{8}$ and $1\frac{11}{16}$	21	$\frac{1}{2}$ and $\frac{1}{2}$	1.00	1.50
376	$\frac{3}{4}$ and $\frac{7}{8}$	$1\frac{5}{16}$ and $1\frac{1}{2}$	21	$\frac{1}{2}$ and $\frac{1}{2}$	1.00	1.50
377	$\frac{3}{4}$ and 1	$1\frac{5}{16}$ and $1\frac{11}{16}$	22	$\frac{1}{2}$ and $\frac{1}{2}$	1.10	1.65
378	$\frac{3}{4}$ and $1\frac{1}{8}$	$1\frac{5}{16}$ and $1\frac{7}{8}$	22	$\frac{1}{2}$ and $\frac{1}{2}$	1.10	1.65
379	$\frac{7}{8}$ and 1	$1\frac{1}{2}$ and $1\frac{11}{16}$	22	$\frac{1}{2}$ and $\frac{1}{2}$	1.10	1.65
380	$\frac{7}{8}$ and $1\frac{1}{8}$	$1\frac{1}{2}$ and $1\frac{7}{8}$	23	$\frac{1}{2}$ and $\frac{1}{2}$	1.23	1.85
381	$\frac{7}{8}$ and $1\frac{1}{4}$	$1\frac{1}{2}$ and $2\frac{1}{16}$	23	$\frac{1}{2}$ and $\frac{9}{16}$	1.23	1.85
382	1 and $1\frac{1}{8}$	$1\frac{11}{16}$ and $1\frac{7}{8}$	23	$\frac{1}{2}$ and $\frac{1}{2}$	1.23	1.85
383	1 and $1\frac{1}{4}$	$1\frac{11}{16}$ and $2\frac{1}{16}$	24	$\frac{1}{2}$ and $\frac{9}{16}$	1.40	2.10
385	$1\frac{1}{8}$ and $1\frac{1}{4}$	$1\frac{7}{8}$ and $2\frac{1}{16}$	24	$\frac{1}{2}$ and $\frac{9}{16}$	1.40	2.10

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THE W. M. PATTISON SUPPLY CO. 1003 CLEVELAND

WRENCHES.

CONSTRUCTION WRENCH.

FIG 2749.

STRUCTURAL WRENCH.

FIG. 2750.

Construction Wrenches.

Number.	For U. S. Standard Nut; Bolt, Inches.	Opening, Finished, Inches.	Extreme Length, Inches.	Thickness, Head, Inches.	Price, Unfinished Each.	Price, Semi-Finished, Each.	Price, Finished, Each.
223	$\frac{3}{4}$	$1\frac{1}{16}$	9	$\frac{11}{32}$	.20	.30	.40
225	$\frac{7}{8}$	$1\frac{7}{16}$	$11\frac{1}{2}$	$\frac{7}{16}$	.32	.48	.64
226	$\frac{9}{16}$	$\frac{31}{32}$	$12\frac{1}{2}$	$\frac{1}{2}$	.40	.60	.80
227	$\frac{5}{8}$	$1\frac{1}{16}$	14	$\frac{9}{16}$	.50	.75	1.00
228	$\frac{3}{4}$	$1\frac{1}{4}$	16	$\frac{5}{8}$	.65	.97	1.30
229	$\frac{7}{8}$	$1\frac{7}{16}$	$17\frac{1}{2}$	$\frac{11}{16}$	.85	1.28	1.70
230	1	$1\frac{5}{8}$	19	$\frac{3}{4}$	1.10	1.65	2.20

Unfinished Wrenches have milled openings.

Structural Wrenches.

523	$\frac{3}{4}$	$\frac{23}{32}$	9	$\frac{11}{32}$	.20	.30	.....
525	$\frac{7}{8}$	$1\frac{5}{16}$	$11\frac{1}{2}$	$\frac{7}{16}$	.32	.48	.....
526	$\frac{9}{16}$	$1\frac{13}{64}$	$12\frac{3}{4}$	$\frac{1}{2}$	.40	.60	.....
527	$\frac{5}{8}$	$1\frac{1}{8}$	$14\frac{1}{8}$	$\frac{9}{16}$	.50	.75	.....
528	$\frac{3}{4}$	$1\frac{5}{16}$	16	$\frac{5}{8}$	.65	.97	.....
529	$\frac{7}{8}$	$1\frac{1}{4}$	$17\frac{1}{2}$	$\frac{11}{16}$	.85	1.28	.....
530	1	$1\frac{11}{16}$	19	$\frac{3}{4}$	1.10	1.65	.....

Furnished same as Double Head Car Wrenches, Fig. 2748.

TRACK WRENCHES.

FIG. 2751

Number	Outside Diameter of Nuts, Inches.	Openings, Inches.	Extreme Length, Inches.	Thickness Head, Inches.	Price, Unfinished, Each.	Price, Semi Finished, Each.
194	$1\frac{1}{4}$	$1\frac{5}{16}$	24	$\frac{25}{32}$	.60	.90
195	$1\frac{3}{8}$	$1\frac{7}{16}$	24	$\frac{13}{16}$	.60	.90
196	$1\frac{1}{2}$	$1\frac{9}{16}$	24	$\frac{13}{16}$	.60	.90

Furnished same as Double Head Car Wrenches, Fig. 2748.

Cast Steel Track Wrenches, flat or round handle, 25 cents per pound.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1004

WRENCHES.

BIT BRACE WRENCHES FOR SQUARE AND HEXAGON NUTS.

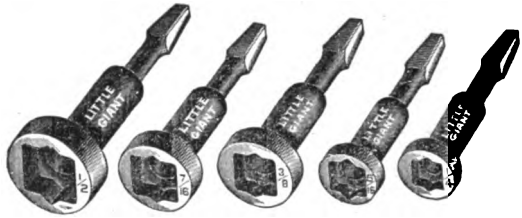

FIG 2752.

Price, Wrenches for $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$ and $\frac{1}{2}$ inch nuts.. ....per set	.50

Drop Forged.

MODEL A.

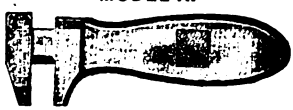

FIG. 2753.

MODEL B, D AND E.

FIG. 2754.

Drop Forged Wrenches; Models, A, B, D and E.

Model	A	B	D	E
Length Closed.....inches	4½	5	6	7
Opens.....inches	1	1	1½	1¾
Price, Black..... .....per dozen	9.00	9.00	10.00	12.00
Price, Nickel Plated..... per dozen	10.00	10.00	12.00	15.00

DROP FORGED, ADJUSTABLE

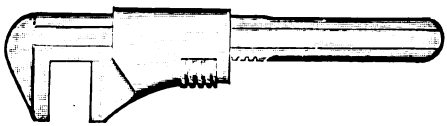

FIG. 2755.

ADJUSTABLE, S.

FIG. 2756

Drop Forged Adjustable Wrenches.

Size.....inches	10	14	18
Opens.....inches	2	2½	3
Price, Semi-Finished.... .....per dozen	10.00	24.00	30.00
Price, Full Finished..... per dozen	12.00	28.00	36.00

Adjustable S Wrenches.

Size.....inches	6	8	10	12	14
Opens.....inches	¾	1	1⅜	1⅝	2
Price.....per dozen	7.20	9.00	12.00	15.00	21.00

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THE W. M. PATTISON SUPPLY CO. 1005 CLEVELAND

WRENCHES.

ALLIGATOR

FIG 2757.

Alligator Wrenches.

Number	0	1	2	3	4	5
Holds Pipe.....inches	$\frac{1}{8}$ to $\frac{1}{4}$	$\frac{1}{8}$ to $\frac{3}{8}$	$\frac{3}{8}$ to $\frac{3}{4}$	$\frac{1}{2}$ to $1\frac{1}{4}$	$1\frac{1}{4}$ to2	2 to3
Holds Round Iron.....inches	$\frac{1}{4}$ to $\frac{1}{2}$	$\frac{1}{4}$ to $\frac{3}{4}$	$\frac{1}{2}$ to 1	$\frac{3}{4}$ to $1\frac{3}{8}$	$1\frac{1}{2}$ to$2\frac{1}{2}$	$2\frac{1}{2}$ to$3\frac{1}{2}$
Length.....inches	4	$5\frac{3}{4}$	10	16	22	27
Price.....per dozen	3.00	4.00	12.00	24.00	36.00	54.00

AGRICULTURAL OR STANDARD.

FIG. 2758.

ENGINEERS', EXTRA HEAVY.

FIG. 2759.

Agricultural and Engineers' Wrenches.

Length.....inches	6	8	10	12	15	18
Price, Agricultural, Black ...per dozen	9.00	10.00	12.00	14.00	24.00	.....
Price, Engineers', Black .....per dozen	9.00	10.00	12.00	14.00	24.00	30.00

SOLID HANDLE.

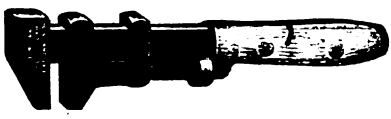

FIG. 2760.

COES' KNIFE HANDLE.

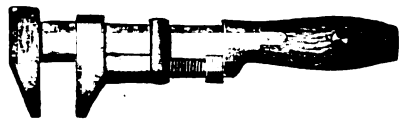

FIG. 2761.

Solid Handle Wrenches.

Length.....inches	6	8	10	12	15	18	21
Will Open.....inches	$\frac{7}{8}$	$1\frac{1}{4}$	$1\frac{3}{4}$	$2\frac{1}{8}$	$2\frac{3}{4}$	$3\frac{1}{8}$	$4\frac{1}{4}$
Price, Black.....per dozen	9.00	10.00	12.00	14.00	24.00	30.00	36.00

Coes' Knife Handle Wrenches.

Length.....inches	6	8	10	12	15	18	21
Will Open.....inches	$\frac{7}{8}$	$1\frac{1}{4}$	$1\frac{3}{4}$	$2\frac{1}{8}$	$2\frac{3}{4}$	3	$4\frac{1}{4}$
Price, Black.....per dozen	9.00	10.00	12.00	14.00	24.00	30.00	36.00

Coe's All Steel Wrenches same list as Knife Handle Wrenches.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1006

PLIERS.

ROUND NOSE.

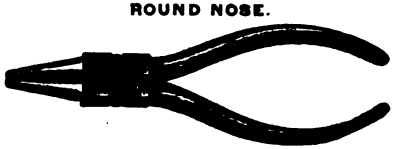

FIG. 2762.

FLAT NOSE.

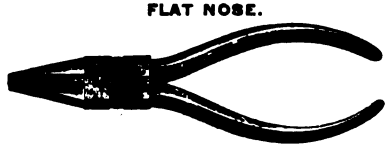

FIG. 2763.

Round and Flat Nose Pliers.

Length.....inches	3	3½	4	4½	5	5½	6	7	8
Price, Black.....per dozen	4.30	4.30	4.30	4.75	5.10	5.85	6.65	9.35	10.95
Price, Polished.....per dozen	5.65	5.65	5.65	6.00	6.65	8.55	9.50	12.65	14.70
Price, Nickel Plated...per dozen	7.75	7.75	7.75	8.05	8.70	10.75	11.85	15.00	17.35

DUCK BILL.

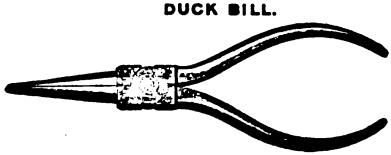

FIG. 2764

BUTTONS' PATTERN.

FIG 2765.

Duck Bill Pliers.

Finish	Black	Polished	Nickel Plated
Length.....inches	5½	5½	5½
Price.....per dozen	9.70	13.40	16.25

Buttons' Pattern Pliers.

Length.....inches	4½	6	8	10
Price.....per dozen	10.00	12.00	15.00	20.00

BERNARDS';
OPEN THROAT, FLAT NOSE.

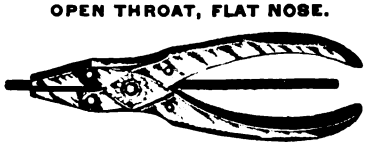

FIG. 2766.

BERNARDS';
OPEN THROAT, ROUND NOSE.

FIG. 2767

Bernards' Flat and Round Nose Pliers.

Length.....inches	4½	5½	6½	7½
Price, Flat Nose; Nickel Plated.....per dozen	7.00	9.00	11.00	15.00
Price, Round Nose; Nickel Plated.....per dozen	7.00	9.00	11.00	.....

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THE W. M. PATTISON SUPPLY CO. 1007 CLEVELAND O.

PLIERS AND NIPPERS.

JEWELERS' LONG CHAIN NOSE.

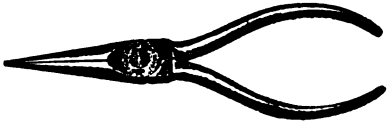

FIG. 2768.

NEEDLE NOSE.

FIG. 2769.

Jewelers' Long Chain and Needle Nose Pliers.

Finish	Black	Polished	Nickel Plated
Length.....inches	5½	5½	5½
Price, Long Chain Nose.....per dozen	10.05	13.05	16.25
Price, Needle Nose .....per dozen	13.15	16.45	19.70

CURVED NEEDLE NOSE.

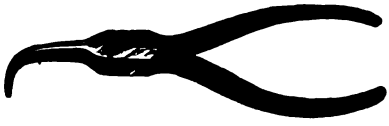

FIG. 2770.

END CUTTING.

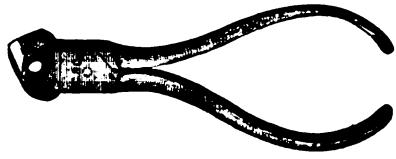

FIG. 2771.

Curved Needle Nose Pliers.

Finish	Black	Polished	Nickel Plated
Length.....inches	5½	5½	5½
Price .....per dozen	14.45	18.10	21.70

End Cutting Nippers.

Length.....inches	3	3½	4	4½	5	5½	6	7	8
Price.....per dozen	4.20	4.20	4.20	4.20	4.70	5.20	5.80	7.60	10.20

DIAGONAL CUTTING.

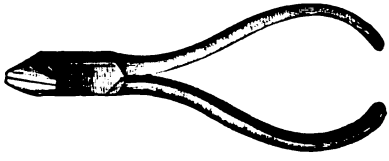

FIG. 2772.

FLAT SIDE CUTTING.

FIG. 2773.

Diagonal Nippers and Flat Side Cutting Pliers.

Length.....inches	3	3½	4	4½	5	5½	6	7	8
Price, Diagonal; Cast Steel.....per dozen	5.80	5.80	5.80	5.80	5.80	6.70	7.50	9.50	12.00
Price, Diagonal; Solid Steel.....per dozen	8.00	8.00	8.00	8.00	8.00	9.00	10.00	14.00	18.00
Price, Flat Side, With Hole. .....per dozen	.....	.....	.....	.....	.....	.....	.....	13.50	18.50
Price, Flat Side, Cast Steel.....per dozen	.....	.....	6.50	6.50	7.60	8.10	9.15	10.78	12.80
Price, Flat Side, Polished.....per dozen	.....	.....	8.10	8.10	9.15	9.85	10.70	12.30	14.40

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PLIERS AND NIPPERS.

BERNARDS';
OPEN THROAT; CUTTING.

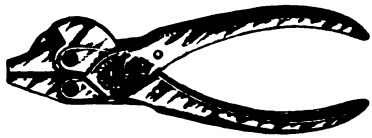

FIG. 2774.

SIDE CUTTING, BOX JOINT;
RAISED CUTTERS.

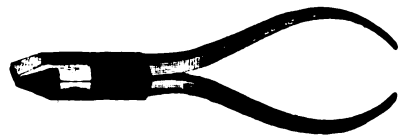

FIG. 2775.

Bernards' Open Throat Cutting Pliers.

Length.....inches	4½	5½	6½	7½
Price, Nickel Plated.....per dozen	11.50	14.50	17.50	23.50

Side Cutting Pliers; Box Joint, Raised Cutters.

Length.....inches	5	6	7	8
Price, Black.....per dozen	12.50	13.50	17.00	20.00
Price, Nickel Plated.....per dozen	14.50	15.50	19.50	22.50

INSULATED SIDE CUTTING.

FIG. 2776.

ACME, CUTTING.

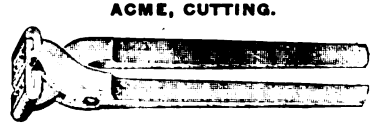

FIG. 2777.

Insulated Side Cutting Pliers.

Length.....inches	6	7	8
Price.....per dozen	25.00	33.00	40.00

Acme Cutting Nippers.

Length.....inches	5	8	10	11	12	15
Price.....per pair	1.25	1.50	1.75	2.00	2.25	3.00

DIAGONAL CUTTING, BOX JOINT.

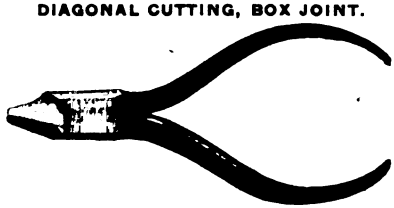

FIG. 2778.

STANDARD SIDE CUTTING.

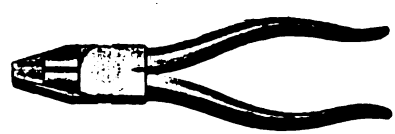

FIG. 2779.

Diagonal Cutting Pliers.

Price, 6 inches long.....per dozen	15.00

Standard Side Cutting Pliers.

Length.....inches	4	5	5½	6	7	8
Price.....per dozen	8.95	9.90	11.25	12.15	15.60	18.85

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THE W. M. PATTISON SUPPLY CO. 1009 CLEVELAND

PLIERS, NIPPERS AND PINCERS.

JEWELERS' END CUTTING.

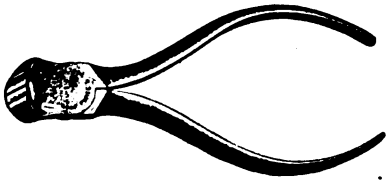

FIG. 2780.

LONG CHAIN NOSE, SIDE CUTTING.

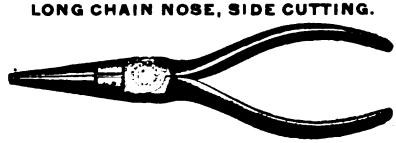

FIG. 2781.

Jewelers' End Cutting Nippers.

Length.....inches	3	3½	4	4½	5
Price, Black.....per dozen	11.10	11.25	11.55	11.95	12.25
Price, Polished.....per dozen	14.35	14.45	14.80	14.95	15.40
Price, Nickel Plated.....per dozen	15.95	16.10	16.40	16.75	17.00

Long Chain Nose, Side Cutting Pliers.

Finish	Black	Polished	Nickel Plated
Length.....inches	5½	5½	5½
Price.....Per Dozen	14.95	17.80	20.70

COMPOUND CUTTING.

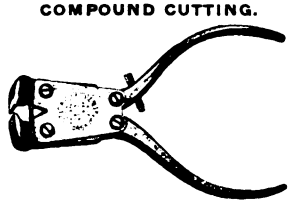

FIG. 2782.

CAREWS' CUTTING.

FIG. 2783.

Compound Cutting Nippers.

Length.....inches	4	5	6	7	8	11
Price, Black.....per dozen	18.30	21.70	29.80	32.10	36.75	41.15
Price, Polished.....per dozen	22.25	26.50	34.10	36.40	40.90	46.10
Price, Nickel Plated.....per dozen	25.25	29.65	37.10	40.05	44.45	50.55

Carews' Cutting Nippers.

Length.....inches	8	10	12	14
Price.....per pair	2.00	2.25	2.60	3.00

CARPENTERS' PINCERS.

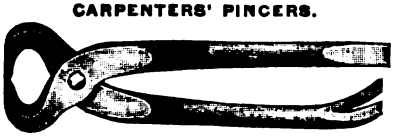

FIG. 2784.

COMBINED GAS PLIERS AND WIRE CUTTER.

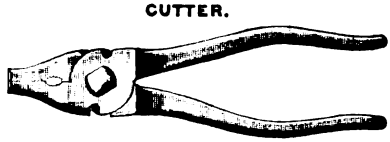

FIG. 2785.

Carpenters' Pincers.

Length.....inches	6	7	8	9	10	12
Price.....per dozen	4.25	4.75	5.25	6.25	7.00	8.50

Combined Gas Pliers and Wire Cutter.

Length.....inches	6	8	10
Will Cut Wire.....inches	1/8	5/32	5/32
Price.....per dozen	12.00	15.00	20.00

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THE W. M. PATTISON SUPPLY CO. 1010 CLEVELAND

PLIERS AND BOLT CLIPPERS.

COMBINATION PLIERS.

FIG. 2786.

FIG. 2787.

Length.....inches	6	10	14
Price, Black.....per dozen	13.50	18.00	24.00
Price, Nickel Plated.....per dozen	15.00	21.00	30.00

BURNER PLIERS.

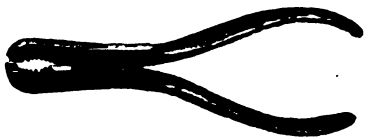

FIG. 2788.

GAS PLIERS.

FIG. 2789.

Length.....inches	5	6	7	8	9	10	12	14
Price, Burner Pliers, Polished.per dozen	4.80	6.50	10.00	.....	.....	.....	.....	.....
Price, Gas Pliers, Polished.....per dozen	.....	.....	7.40	8.25	9.25	10.70	13.00	17.00

BOLT CLIPPER.

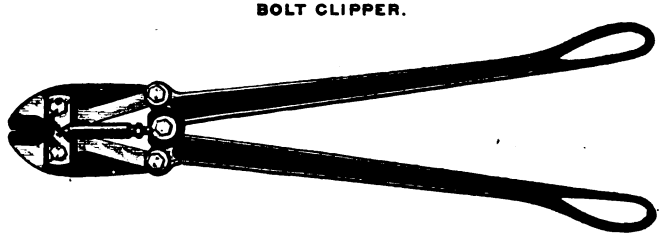

FIG. 2790.

Number.....	0	3	4	5
Size Bolts will Cut or Less.....inches	$\frac{1}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$ or $\frac{3}{4}$
Price.....each	3.75	5.00	7.00	10.00

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THE W. M. PATTISON SUPPLY CO. 1011 CLEVELAND

LINEMEN'S CLAMPS.

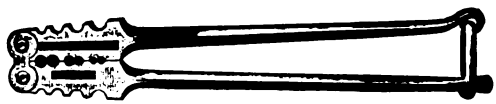

FIG. 2791.

Number	713	714	715	716
Length.....inches	11	11	11	11
For Wire, Number.....	8 and Smaller, B and S Gauge.	0 and Smaller, B and S Gauge.	8 and Smaller, B and S Gauge.	8 and Smaller, for American Joints. 10, 12, 13 and 14 for McIntyre Joints, B and S Gauge.
Price.....per dozen	35.00	35.00	35.00	62.50

STEEL CLAMP.

FIG. 2792.

GRIP CLIMBERS.

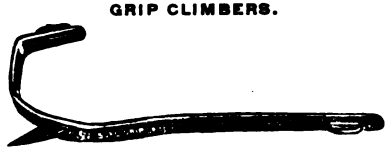

FIG. 2793.

Steel Clamps.

For Wire.....number	8	½ inch and smaller
Price.....each	2.00	4.00

Grip Climbers.

Price, Without Straps; 15, 15½, 16, 16½, 17, 17½ and 18 inches.....per dozen pairs	35.00
Price, Straps Only; 4 in a set.....per dozen sets	25.30

TINNERS' SNIPS

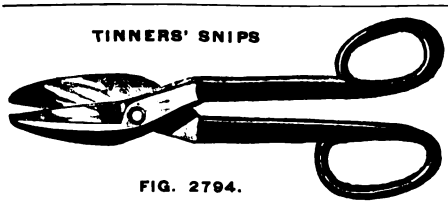

FIG. 2794.

SOLDERING COPPER.

FIG. 2795.

Tinners' Snips.

Number	06½	6½	7	8	9	10
Length.....inches	18	18	18	18	18	18
Hand Cut.....inches	4½	4½	4	3½	3	2½
Price.....each	4.50	3.00	2.50	2.00	1.50	1.40

Soldering Coppers.

Weight, Per Pair.....pounds	1	1½	2	2½	3	4	5	6	7	8	10	12	14
Price.....per pound	.40												

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THE W. M. PATTISON SUPPLY CO. 1012 CLEVELAND

PATTERN LETTERS AND BRANDING IRONS.

PATTERN LETTERS.

FIG. 2796.

White Metal Pattern Letters.

Size.....inches	1/8	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4
Price, Roman.....each	.02	.02	.02	.02	.02½	.02½	.02½	.03	.03	.03½
Price, Hair Line Gothic.....each	.02	.02	.02	.02	.02½	.02½	.02½	.03	.03	.....
Price, Sharp Face Gothic.....each	.02	.02	.02	.02	.02½	.....	.02½	....	.03	.03½

Size.....inches	7/8	1	1¼	1½	2	.....	.....	.....	.....	.....
Price, Roman.....each	.04	.04½	.06	.07½	.09	.....	.....	.....	.....	.....

Brass Pattern Letters.

Size.....inches	1/8	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4
Price, Hair Line Gothic.....each	.04	.04	.04	.04	.05	.05	.05	.06	.06	.....
Price, Sharp Face Gothic.....each	.04	.04	.04	.04	.05	.....	.05	.....	.06	.70

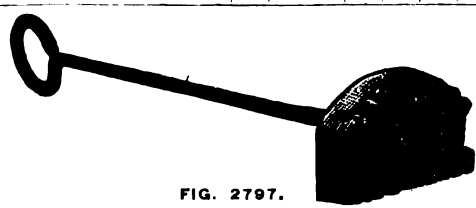

FIG. 2797.

Branding Irons; Letters.

Size.....inches	1/4, 3/8, 1/2	3/4	1
Number of Letters	5 or less	3 or less	3 or less
Price.....each	1.50	1.50	2.25
Price, Each Additional Letter.....each	.25	.35	.50

Branding Irons; Figures.

Price, Each Figure on separate handle, 1 inch and under.....per set of nine pieces	9.00
Price, Each Figure on separate handle, 1½ inch.....per set of nine pieces	13.50

Branding Irons without Letters or Figures.

Number	3	6	X	XI	XIII
Inside.....inches	2⅝	4¼	2	3½	6½
Size Letter will take.....inches	¼	¼	½	½	½
Fee.....each	1.00	1.00	1.50	1.50	1.50

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STEEL NAME STAMPS, FIGURES AND LETTERS.

FIG. 2798.

FIG. 2799.

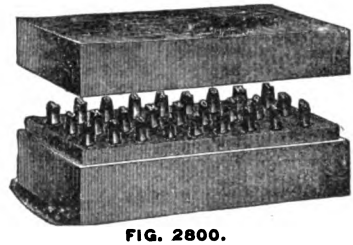


FIG. 2800.

Steel Name Stamps.

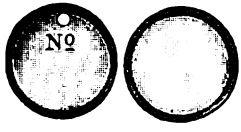
Size .....inches	1/32	1/16	1/8	3/32	1/16	1/8	5/32	3/16	1/4	5/16	3/8	7/16	1/2
Price, Gothic.....per letter	.25	.20	.15	.15	.15	.15	.15	.20	.25	.30	.35	.45	.55	.60
Price, Roman .....per letter	.30	.25	.20	.20	.20	.20	.20	.25	.30	.40	.50	.60	.70	.80

Steel Figures and Letters.

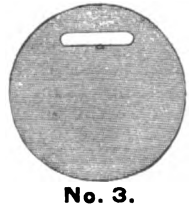
Size .....inches	1/32	1/24	1/20	1/16	1/12	5/32	1/16	1/8
Price, Alphabets..... per set	3.75	3.45	3.39	2.70	2.70	2.70	2.70	2.70
Price, Figures .....per set	1.25	1.15	1.13	.90	.90	.90	.90	.90
Price, Single Figures or Letters...each	.20	.20	.20	.15	.15	.15	.15	.15

Size .....inches	5/32	3/16	1/4	5/16	3/8	7/16	1/2	3/4
Price, Alphabets .....per set	3.39	3.75	4.50	5.25	7.50	10.50	13.50	63.00
Price, Figures..... per set	1.13	1.25	1.50	1.75	2.50	3.50	4.50	21.00
Price, Single Figures or Letters...each	.16	.18	.20	.25	.35	.45	.50	3.00

BRASS CHECKS.

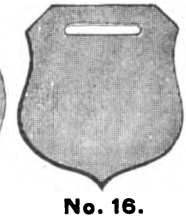


No. 0. No. 2.



No. 3.

No. 12.



No. 16.

No. 22.

No. 39.

No. 49.

No. 51.

FIG. 2801.

Number.....	0	2	3	12	16	22	39	49	51
Number to the Pound.....	125	120	60	67	63	88	36	58	69
Price.....per pound	.80	.80	.75	.75	.90	.90	.75	.80	.75

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BRASS STENCILS.

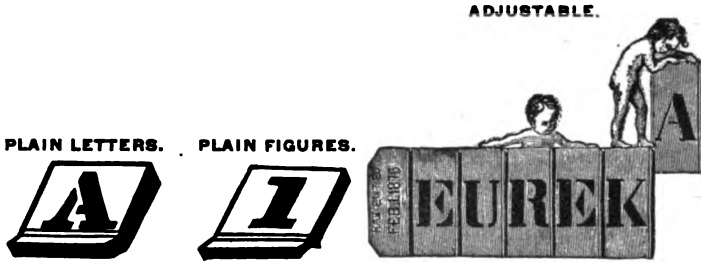

FIG. 2802

Plain Brass Stencils; Letters and Figures.

Size.....inches	¼	⅜	½	¾	1	1¼	1½	1¾	2
Price, Letters..... per set	.50	.50	.50	.50	.60	.80	1.00	1.20	1.20
Price, Figures.....per set	.25	.25	.25	.25	.30	.40	.50	.60	.60
Size.....inches	2½	3	3½	4	4½	5	6	7	8
Price, Letters.....per set	1.60	4.50	5.25	6.00	6.75	7.50	9.00	12.00	15.00
Price, Figures .....per set	.80	1.50	1.75	2.00	2.25	2.50	3.00	4.00	5.00

Adjustable Brass Stencils; Letters.

Number.....	1	2	3	4
Size, Letter.....inches	¾	1	1½	2
Price, Alphabet, 27 Letters, Punctuations, Beginners and Enders..per set	.70	.80	1.00	1.40

Adjustable Brass Stencils; Figures.

Number.....	5	6	7	8
Size, Figure.....inches	¾	1	1½	2
Price Numerals (10 Figures) Dollar and Cent Mark, Period, Beginners and Enders..per set	.30	.35	.45	.65

CIRCULAR BRASS STENCILS; LETTERS AND FIGURES.

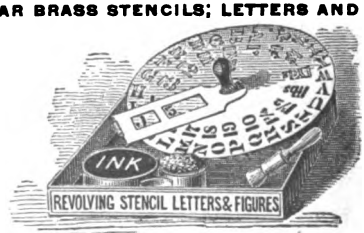

FIG. 2803.

Size, Letter.....inches	⅛	¼	⅜	½	⅝	¾	⅞	1	1¼	1½	2
Price.....each	1.25	1.25	1.25	1.25	1.50	1.50	1.75	2.00	2.50	*2.00	*3.00

*Alphabet only.

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THE W. M. PATTISON SUPPLY CO. 1015 CLEVELAND

BRUSHES.

SQUARE, STEEL WIRE CASTING.

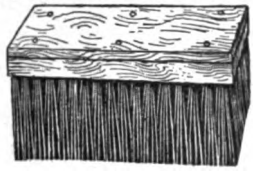

FIG. 2804.

ROUND, STEEL WIRE CASTING.

FIG. 2805.

Square Steel Wire Casting Brushes.

Number	2	3	4	6	7	8
Number of Rows	4	4	4	5	5	5
Wire.....inches	3	4	5	3	4	5
Price.....per dozen	3.50	4.00	4.50	3.75	4.25	4.75

Round Steel Wire Casting Brushes.

Price, No. 10, 3 inch diameter; 5 inch wire.....per dozen	3.50

MOLDERS' SOFT DUSTER.

FIG. 2806.

MOLDERS' STIFF BRUSH.

FIG. 2807.

Molders' Soft Dusters; Wire Drawn.

	Pure Black Hair	Pure Black Hair	Pure Gray Hair
Number	205	208	208 S
Block.....inches	10 x 2	$8\frac{3}{4}$ x $2\frac{5}{16}$	$8\frac{3}{4}$ x $2\frac{5}{16}$
Number of Rows	5	5	5
Trim.....inches	$3\frac{1}{4}$	$2\frac{1}{2}$	$3\frac{1}{4}$
Price.....per dozen	6.50	6.00	8.00

Molders' Stiff Brushes.

Price, No. 204 B, Block $8\frac{1}{2}$ x $2\frac{1}{2}$; American Bristle.....per dozen	5.00

FLOOR BRUSH, GRAY HAIR, EXTRA HEAVY.

FIG. 2808.

Number	22	24	26	28
Size.....inches	12	14	16	18
Price.....per dozen	16.50	19.00	22.00	26.00

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THE W. M. PATTISON SUPPLY CO. 1016 CLEVELAND

BRUSHES.

RUBBER BAND CAR WASHER.

FIG. 2809.

POPES EYE, WINDOW.

FIG. 2810.

Rubber Band Car Washers; Russia Bristle, Wire Drawn.

Price, No. 1, Large Size	per dozen	44.00
Price, No. 2, Medium Size	per dozen	36.00

Popes Eye Window Brushes.

Price, No. 21, Black Bristle, 7 inches in diameter	per dozen	7.00
Price, No. 26, Black Bristle, 8 inches in diameter	per dozen	9.50

MARKING.

FIG. 2811.

STENCIL.

FIG. 2812.

Marking Brushes.

Price, No. 51, White Bristles, Cedar Handle, Assorted, Nos. 1 to 6	per gross	5.75
Price, No. 52, Camels' Hair, Cedar Handle, Assorted, Nos. 1 to 4	per gross	7.50

Stencil Brushes.

Number	1	2	3	4	5	6	8	10	12	14
Price per dozen	2.50	2.65	2.80	3.25	3.75	4.50	5.50	6.50	8.25	12.00

COUNTER DUSTER.

FIG. 2813.

BENCH OR SHOP DUSTER.

FIG. 2814.

Counter Dusters.

Bench or Shop Dusters.

	Gray Tampico Fiber, Pitched.	Pure Bristle, Gray Body, Pitched.	Mixed Gray Hair.	Extra Stiff Pure Black Hair
Number	412	416	422	427
Size ..... inches	9	9	9	9
Price ..... per dozen	4.00	9.35	6.70	9.00

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THE W. M. PATTISON SUPPLY CO. 1017 CLEVELAND

BRUSHES.

WALL.

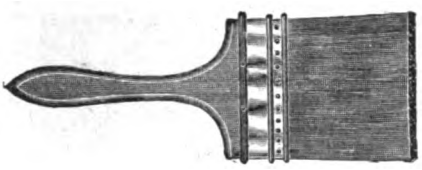

FIG. 2815.

SASH.

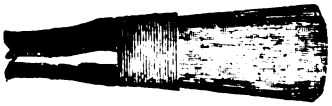

FIG. 2816.

Wall Brushes; Solid Center, Nickel Bound, Black Chinese Bristles, Red Polished Handles.

Size	2½	3	3½	4	4½	5	5½
Length.....inches	2½	2¾	3	3½	3½	3¾	3¾
Price .....per dozen	4.50	6.00	7.50	9.80	12.00	16.00	19.00

Wall Brushes; Solid Center, Nickel Bound, Black Chinese Bristles, White Handles.

Size	2½	3	3½	4	4½	5
Length.....inches	3 1/16	3 5/16	3 5/16	3 13/16	4 1/16	4 5/16
Price .....per dozen	5.70	7.90	9.40	13.80	18 80	22.50

Sash Tools; All White Bristles, Wire Bound

Number	1	2	3	4	5	6	7	8
Price .....per dozen	.40	.50	.60	.70	.80	.90	1.10	1.30

Sash Tools; Chiseled Point, Chinese Bristles, Brass Bound, Cedar Handles.

Number	1	2	3	4	5	6	7	8	9	10
Price.....per dozen	.90	1.10	1.30	1.50	1.80	1.90	2.40	3.30	3.50	3.80

VARNISH.

FIG 2817.

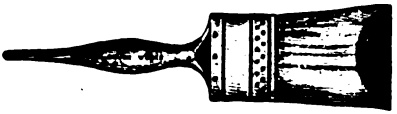

FIG. 2818.

Flat Varnish Brushes; Double Thick, Black Chiseled Chinese Bristles, Yellow Handles.

Size	1	1½	2	2½	3
Price. .....per dozen	.90	1.36	1.80	2.20	2.80

Flat Varnish Brushes; Chiseled Chinese Bristles, Metal Bound, Natural Handles.

Size	1	1½	2	2½	3
Price..... .....per dozen	1.20	1.80	2.40	3.00	3.80

Glue Brushes.

	White Bristles, Iron Handles.			Gray Bristles, Wood Handles.	
Number.....	2	4	6	6–0	8–0
Price..per dozen	4.00	6.00	9.00	12.50	15.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

BROOMS, ETC.

ROUND STEEL WIRE PUSH BROOM.

FIG. 2819.

RATTAN PUSH BROOM.

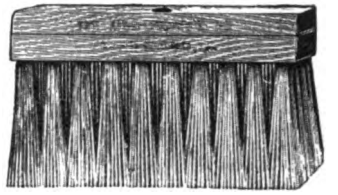

FIG. 2820.

Round Steel Wire Push Brooms.

Number	140	141	142	143
Length ..... inches	10	12	14	16
Wire ..... inches	3½	3½	3½	3½
Price ..... per dozen	14.00	15.00	16.50	18.00

Heavy Rattan Push Brooms; Stock, 6 inches Clear.

Length ..... inches	12	14	16	18
Price, 4 Row ..... per dozen	7.00	8.15	9.60	10.75
Price, 5 Row ..... per dozen	8.15	9.60	10.75	12.10
Price, 6 Row ..... per dozen	9.60	10.75	12.10	13.35

Push Broom Handles.

Size ..... inches	54 x 1⅛	60 x 1⅜	72 x 1¼
Price ..... per dozen	.60	1.00	1.35

METAL CASE BROOM.

FIG. 2821.

FACTORY BROOM, IRON BAND.

FIG. 2822.

COTTON MOP

FIG. 2823.

MOP STICK.

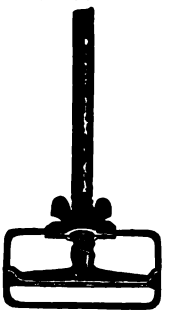

FIG. 2824.

No. 1 and 2.

No. 6.

Brooms.

Number	1	2	6
Price, Rattan Mixed or all Corn ..... per dozen	3.50	3.00	.....
Price, Bamboo ..... per dozen	4.00	.....	.....
Price, Pure Corn ..... per dozen	.....	.....	8.25

Extra heavy House Brooms, 4 Seams, per dozen, 7.00. No. 1 Whisk Brooms, per dozen, 2.75.

Cotton Mops.

Number and Ounces	12	14	16	18	20
Price ..... per dozen	3.20	3.50	3.80	4.20	4.50

Mop Sticks, per dozen, 1.50. Combined Mop and Brush Holder, per dozen, 2.00.

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THE W. M. PATTISON SUPPLY CO. 1019 CLEVELAND

LEWIS MACHINISTS' VISES.

SEFL ADJUSTING JAW; STATIONARY BOTTOM.

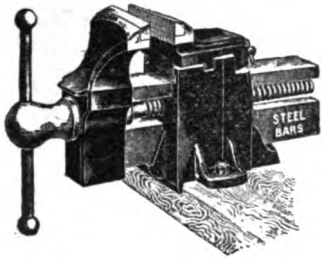

FIG. 2825.

SELF ADJUSTING JAWS SWIVEL BOTTOM.

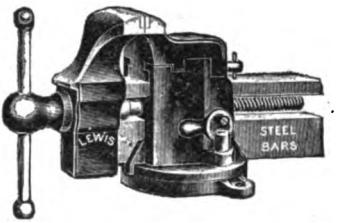

FIG. 2826.

Self Adjusting Jaw; Stationary Bottom.

Number	3	5	7	9	11	13	15	17	19
Length of Jaws.....inches	2½	3	3½	4	4½	5	5½	6½	7½
Opens.....inches	3½	4	5	6	7	8	9	10	12
Weight.....pounds	18	25	33	54	70	105	125	165	198
Price.....each	5.50	6.25	7.00	9.00	10.50	16.00	18.00	24.00	30.00

Self Adjusting Jaw; Swivel Bottom.

Number	4	6	8	10	12	14	16	18	20
Length of Jaws.....inches	2½	3	3½	4	4½	5	5½	6½	7½
Opens.....inches	3½	4	5	6	7	8	9	10	12
Weight.....pounds	22	29	38	60	78	120	142	185	222
Price.....each	6.75	7.50	8.50	10.50	12.50	18.00	21.00	27.00	35.00

SOLID JAWS; STATIONARY BOTTOM.

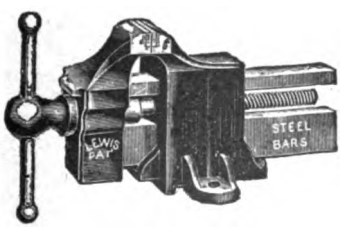

FIG. 2827.

SOLID JAWS; SWIVEL BOTTOM.

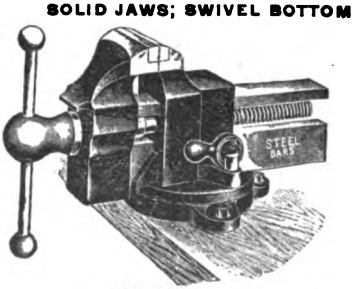

FIG 2828.

Solid Jaw; Stationary Bottom.

Number	35	37	39	41	43	45	47	49
Length of Jaws.....inches	3	3½	4	4½	5	5½	6½	7½
Opens.....inches	4	5	6	7	8	9	10	12
Weight.....pounds	22	28	48	60	82	103	135	188
Price.....each	6.00	7.00	8.50	10.00	13.50	18.50	25.00	35.00

Solid Jaw; Swivel Bottom.

Number	34	36	38	40	42	44	46	48
Length of Jaws.....inches	3	3½	4	4½	5	5½	6½	7½
Opens.....inches	4	5	6	7	8	9	10	12
Weight.....pounds	26	36	56	68	93	120	150	214
Price.....each	7.50	9.00	11.50	13.50	17.50	24.00	32.00	40.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1020

PRENTISS VISES.

JEWELERS': SELF ADJUSTING JAW, STATIONARY BOTTOM.

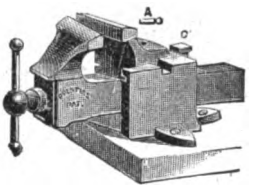

FIG. 2829.

JEWELERS': SELF ADJUSTING JAW, SWIVEL BOTTOM.

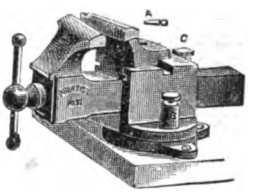

FIG. 2830.

Self Adjusting Jaws; Stationary and Swivel Bottom.

Number	30	35	32	37
Length of Jaws.....inches	1⅜	1⅜	2	2
Opens.....inches	1¾	1¾	2	2
Weight.....pounds	1½	2	3½	4½
Price, Stationary Bottom.....each	3.50	.....	4.00	.....
Price, Swivel Bottom.....each	.....	6.75	.....	5.00
Nickel Plating, Extra.....each	2.25	2.25	2.50	2.50

MACHINISTS': SELF ADJUSTING JAWS, STATIONARY BOTTOM

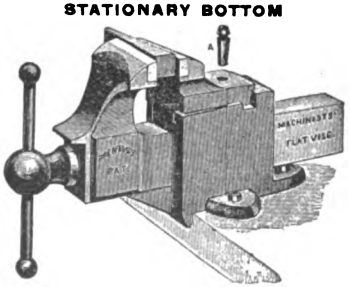

FIG. 2831.

MACHINISTS': SELF ADJUSTING JAWS, SWIVEL BOTTOM.

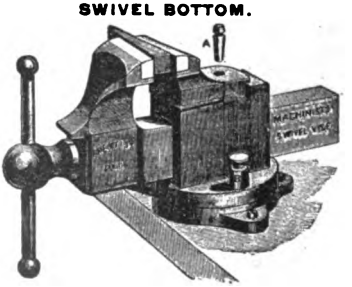

FIG. 2832.

Self Adjusting Jaw; Stationary Bottom.

Number	1	2	2½	3	4	5	6
Length of Jaws.....inches	2⅝	3½	4	4½	5½	6	7
Opens.....inches	3½	4¾	5½	6	8	9	11
Weight.....pounds	13½	28	41	54	96	146	184
Price.....each	5.50	7.00	9.00	10.50	17.00	24.00	30.00

Self Adjusting Jaw; Swivel Bottom.

Number	18	19	19½	20	21	22	23
Length of Jaws.....inches	2⅝	3½	4	4½	5½	6	7
Opens.....inches	3½	4¾	5½	6	8	9	11
Weight.....pounds	17	22	46	65	109	168	207
Price.....each	6.75	8.50	10.50	12.50	19.00	27.00	35.00

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THE W. M. PATTISON SUPPLY CO. 1021 CLEVELAND

PRENTISS MACHINISTS' VISES.

BULL DOG, SOLID JAWS, STATIONARY BOTTOM.

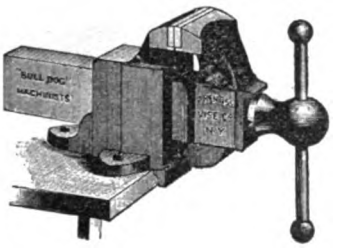

FIG. 2833.

BULL DOG, SOLID JAWS, SWIVEL BOTTOM.

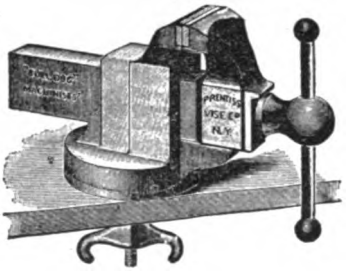

FIG. 2834.

Solid Jaws, Stationary Bottom.

Number	50	51	52	53	54	55	56	57	*58
Length of Jaws.....inches	3¼	3⅜	4⅛	4⅝	5	5½	6	7	8½
Opens.....inches	4	5¼	6	7	8	9	10	12	12
Weight.....pounds	22	28	42	52	72	100	1.35	210	275
Price.....each	6.00	7.00	8.50	10.00	13.00	18.50	25.00	37.50	50.00

*Swivel bottom attachment, extra, 5.00.

Solid Jaws, Swivel Bottom.

Number	90	91	92	93	94	95	96	97
Length of Jaws.....inches	3¼	3⅜	4⅛	4⅝	5	5½	6	7
Opens.....inches	4	5¼	6	7	8	9	10	12
Weight.....pounds	28	36	52	64	85	115	155	235
Price.....each	7.50	8.75	10.50	12.50	16.00	22.00	30.00	42.50

MERRILL SWIVEL BOTTOM.

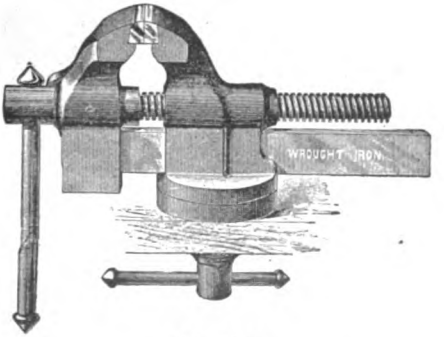

FIG. 2835.

Number	13	23	33	43
Length of Jaws.....inches	4	5	6½	8
Opens.....inches	8	9	10	12
Diameter of Screw.....inches	1⅛	1⅜	1⅝	1⅞
Weight.....pounds	65	80	125	165
Price.....each	11.00	13.00	17.00	22.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

PARKERS' MACHINISTS' VISES.

ROUND JAWS, STATIONARY BOTTOM.

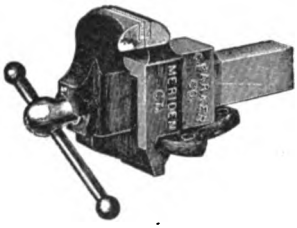

FIG. 2636.

ROUND JAWS, SWIVEL BOTTOM.

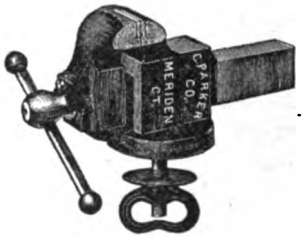

FIG. 2637.

Round Jaws, Stationary Bottom.

Number	A	B	C	D	E	F	G
Length of Jaws.....inches	3¼	3⅝	4⅛	4⅝	5	5½	6
Opens.....inches	4½	5	5½	6½	7	8½	9½
Weight.....pounds	25	28	46	60	74	100	135
Price.....each	6.00	7.00	8.50	10.00	13.00	18.50	25.00

Round Jaw, Swivel Bottom.

Number	A A	B B	C C	D D	E E	F F	G G
Length of Jaws.....inches	3¼	3⅝	4⅛	4⅝	5	5½	6
Opens.....inches	4½	5	5½	6½	7	8½	9½
Weight.....pounds	28	37	52½	66	86	115	156
Price.....each	7.50	8.75	10.50	12.50	16.00	22.00	30.00

ROUND JAWS, STATIONARY BOTTOM.

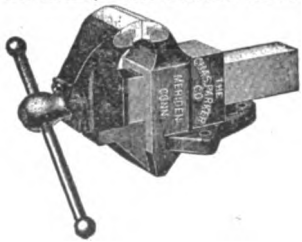

FIG. 2638.

ROUND JAWS, SWIVEL BOTTOM.

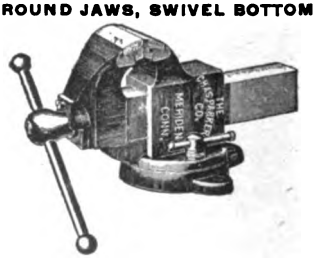

FIG. 2639.

Round Jaws, Stationary Bottom.

Number	3/0 X	1 X	2 X	3 X	4 X	5 X
Length of Jaws.....inches	3¼	3¾	4¼	4¾	5¼	6¼
Opens.....inches	4¼	5½	6¼	8¼	9½	10½
Weight.....pounds	28	45	58	74	104	134
Price.....each	6.25	7.00	9.00	11.75	16.25	24.00

Round Jaws, Swivel Bottom.

Number	21 X	22 X	23 X	24 X	25 X	26 X
Length of Jaws.....inches	3¼	3¾	4¼	4¾	5¼	6¼
Opens.....inches	4¼	5½	6¼	8¼	9½	10½
Weight.....pounds	32	50	65	87	130	160
Price.....each	7.00	8.75	11.00	14.50	20.50	30.00

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THE W. M. PATY SON SUPPLY CO. 1023 CLEVELAND

PARKERS' MACHINISTS' VISES.

SELF ADJUSTING BACK JAW, STATIONARY BOTTOM.

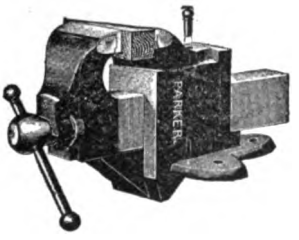

FIG. 2840.

SELF ADJUSTING BACK JAW, SWIVEL BOTTOM.

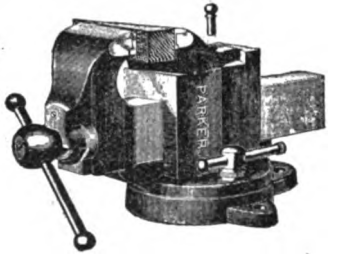

FIG. 2841.

Self Adjusting Back Jaws, Stationary Bottom.

Number	370	371	372	373	374	375
Length of Jaws ..... inches	3¼	3⅝	4½	5	5½	6¼
Weight .....pounds	25	39	57	73	98	150
Price .....each	6.50	7.00	10.00	14.00	17.00	24.00

Self Adjusting Back Jaws, Swivel Bottom.

Number.....	270	271	272	273	274	275
Length of Jaws.....inches	3¼	3⅝	4½	5	5½	6¼
Weight .....pounds	30	42	60	78	110	165
Price .....each	7.00	8.50	12.50	16.00	19.00	27.00

ROUND JAWS, STATIONARY BOTTOM.

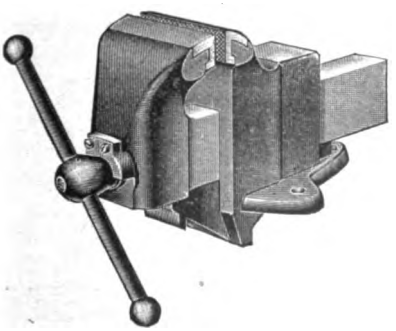

FIG. 2842.

ROUND JAWS, SWIVEL BOTTOM.

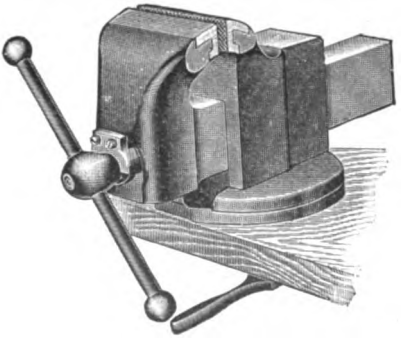

FIG. 2843.

Round Jaws, Stationary Bottom.

Dimensions and Weight: Length of Jaws, 7 inches: Opens, 10½ inches: Weight 190 pounds.

Price, No. 5½ x.....each	30.00

Round Jaws, Swivel Bottom.

Dimensions and Weight: Length of Jaws, 7 inches: Opens, 10½ inches: Weight 202 pounds.

Price, No. 26½ .....each	35.00

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THE W. M. PATTISON SUPPLY CO. 1024 CLEVELAND

VISES.

OVAL SLIDE VISE.

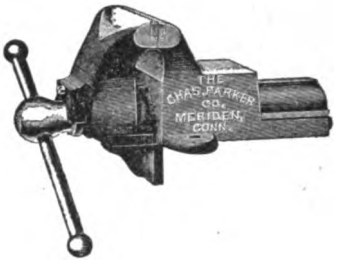

FIG. 2844.

Oval Slide Vises.

Number	30	31	32	33	34	35	36
Length of Jaws..... inches	2⅝	3	3¼	3½	4	4¾	5¼
Weight.....pounds	8½	13	19	22	28	35	62
Price.....each	2.50	3.00	4.25	4.75	6.50	9.50	12.00

HAND VISE WITH LOOP.

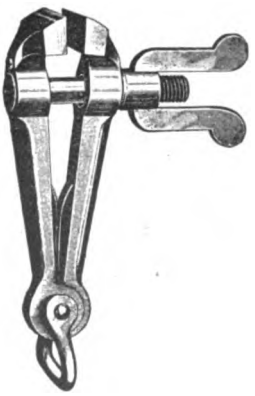

FIG. 2845.

BILLINGS HAND VISES.

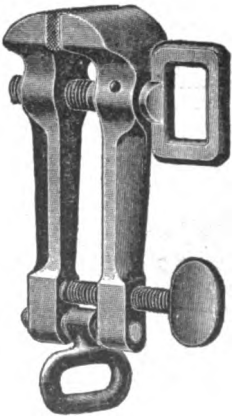

FIG. 2846.

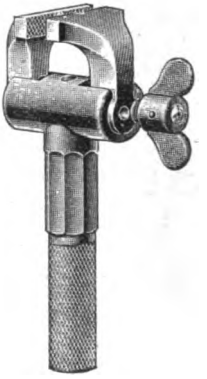

FIG. 2847.

Hand Vises.

Size.....inches	3	3½	4	4½	5	6
Price, without Loop.....per dozen	9.00	9.00	9.00	9.50	11.50	16.00
Price, with Loop 5¼ inches...per dozen	.....	.....	.....	.....	.....	20.00

Billings Hand Vises.

Price, Fig. 2846 without Loop.....each	2.25
Price, Fig. 2846 with Loop.....each	2.50
Price, Vise Straps for Fig. 2846.....each	1.00
Price, Fig. 2847 without Clamp.....each	4.00
Price, Fig. 2847 with Clamp.....each	6.00

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THE W. M. PATTISON SUPPLY CO. 1025 CLEVELAND

VISES.

Coach Makers.

SELF ADJUSTING BACK JAW, STATIONARY BOTTOM.

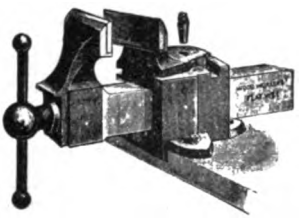

FIG. 2848.

SELF ADJUSTING BACK JAW, SWIVEL BOTTOM.

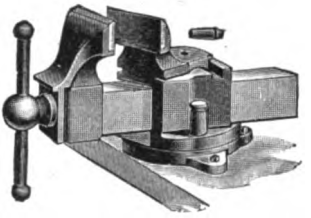

FIG. 2849.

Self Adjusting Jaws; Stationary Bottom.

Number	12	10
Length of Jaws.....inches	3½	4½
Opens.....inches	7	9½
Weight.....pounds	30	59
Price.....each	8.00	11.00

Self Adjusting Jaws; Swivel Bottom.

Number	27	26
Length of Jaws.....inches	3½	4½
Opens.....inches	7	9½
Weight.....pounds	34	67
Price.....each	9.50	13.00

WOODWORKERS' VISE.

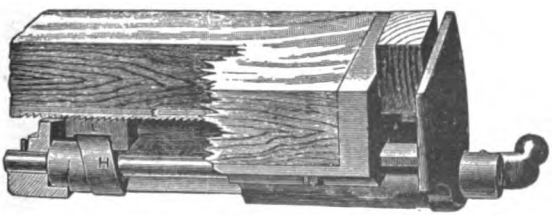

FIG. 2850.

Number	17	19
Length of Jaws.....inches	9	6½
Opens.....inches	12	7
Price.....each	6.00	4.50

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VISES.

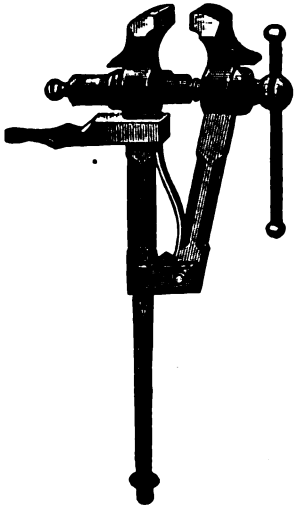

FIG. 2851.

Solid Box Vises.

Length of Jaw..inches	3¾	4	4¼	4½	4¾	5
Weight..... pounds	35	40	45	50	55	60
Price.....each	10.00	10.50	11.00	11.50	12.00	13.00
Length of Jaw..inches	5	5¼	5½	5½	5¾	5¾
Weight.....pounds	65	75	80	85	90	95
Price.....each	14.00	16.00	17.50	18.50	20.00	21.00
Length of Jaw..inches	6	6	6½	6½	7	7
Weight.....pounds	100	110	120	130	140	150
Price.....each	22.00	24.00	26.00	29.00	33.00	36.00
Length of Jaw..inches	7¼	7¼	7½	8	.....	.....
Weight.....pounds	160	170	1.80	200	.....	.....
Price.....each	41.50	44.50	47.00	56.00	.....	.....

MALLEABLE IRON HINGED PIPE VISES.

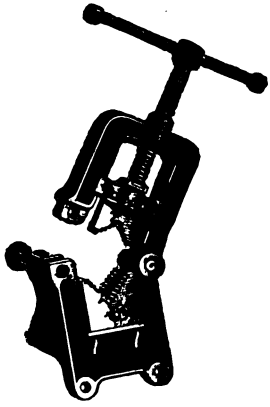

FIG. 2852.
Nos. 1 and 2.

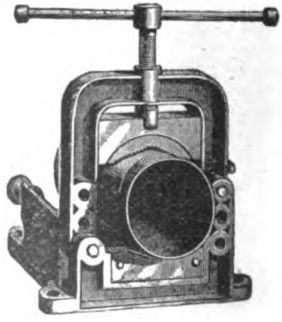

FIG. 2853.
Nos. 3 to 6.

Number	1	2	3	4	5	6
Hold Pipe.....inches	⅛ to 2	⅛ to 3	⅛ to 4	2 to 6	2½ to 8	4 to 12
Price.....each	10.00	13.00	24.00	30.00	45.00	70.00

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THE W. M. PATTISON SUPPLY CO. 1027 CLEVELAND

PIPE VISES.

MALLEABLE IRON, HINGED.

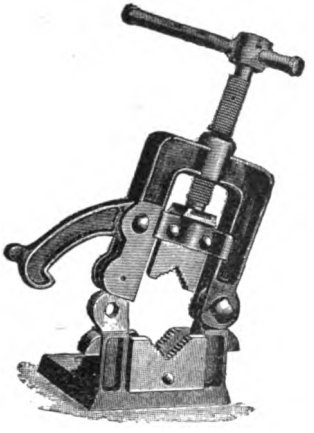

FIG. 2854.

SMITHS' COMBINATION.

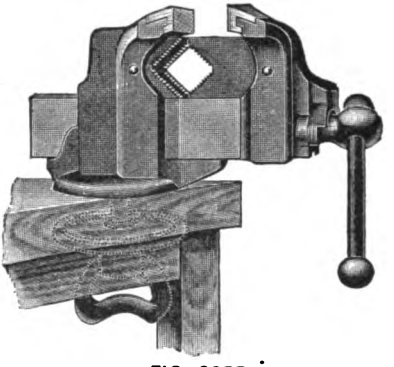

FIG. 2855.

Malleable Iron, Hinged Pipe Vises.

Number	1	1½	2	3	4
Holds Pipe....inches	⅛ to 2½	¼ to 3½	½ to 4½	½ to 5½	½ to 6
Price....each	10.00	14.00	20.00	25.00	30.00

Smiths' Combination.

Number	1	2	3
Holds Pipe....inches	⅛ to 2	¼ to 3	¼ to 4
Price....each	16.00	20.00	28.00

BLAKE COMBINATION PIPE VISES.

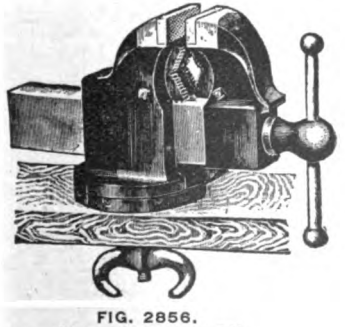

FIG. 2856.
Nos. 181 to 182½.

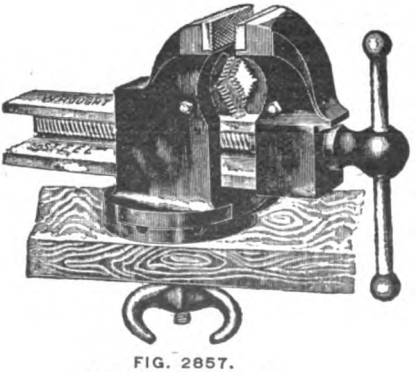

FIG. 2857.
Nos. 183 and 185.

Number	181	182	182½	183	185
Length of Jaws....inches	3½	4½	5	6	7
Weight....pounds	55	80	120	185	240
Holds Pipe....inches	⅛ to 2½	⅛ to 3	⅛ to 4	⅛ to 6	⅛ to 8
Price....each	16.00	20.00	28.00	35.00	60.00

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PIPE TONGS AND WRENCHES.

Browns', Adjustable Pipe Tongs.

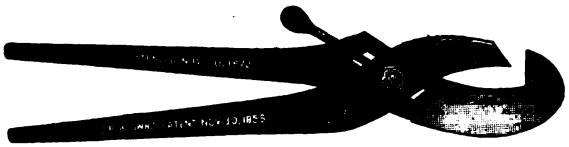

FIG. 2858.

Number	1	1½	2	3	4	5	6	7
Takes Pipe.....inches	⅛ to ¾	⅜ to 1	½ to 1½	1 to 2	1½ to 3	2½ to 4	3 to 5	4 to 7
Price .....each	.60	.75	.85	1.20	2.70	6.00	10.00	11.00

TRIMO PIPE WRENCH.

FIG. 2859.

STILLSON PIPE WRENCH.

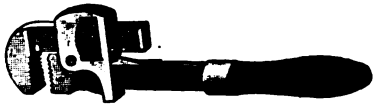

FIG. 2860

Trimo Pipe Wrenches.

Length, Open, Inches	6	8	10	14	18	24	36	48
Grips.....	⅛ In. Wire to ¾ In. Pipe.	⅛ In. Wire to 1 In. Pipe.	⅛ In. Wire to 1 In. Pipe.	⅛ In. Wire to 1½ In. Pipe.	⅛ In. Wire to 2 In. Pipe	⅛ In. Wire to 2½ In. Pipe.	¾ In. Pipe to 3½ In. Pipe.	1 In. Pipe to 6 In. Pipe.
Price.....each	2.00	2.00	2.25	3.00	4.00	6.00	12.00	18.00
Price, Extra Jaws...each	.67	.67	.75	1.00	1.33	2.00	4.00	6.00
Price, Extra Frames.....each	.25	.25	.33	.45	.55	.65	.75	1.00
Price, Extra Inserted Jaws..each	.25	.25	.33	.50	.55	.65	1.00	1.25
Price, Extra Nuts...each	.20	.20	.27	.35	.42	.50	.65	.80

Trimo Special Narrow Jaw Wrenches, 6, 8 and 10 inch, same list as regular Wrenches.

Stillson Pipe Wrenches.

Length, Open, Inches	6	8	10	14	18	24	36	48
Grips	⅛ In. Wire to ¾ In. Pipe.	⅛ In. Wire to ¾ In. Pipe.	⅛ In. Wire to 1 In. Pipe.	⅛ In. Wire to 1½ In. Pipe.	⅛ In. wire to 2 In. Pipe.	⅛ In. Wire to 2½ In. Pipe.	¾ In. Pipe to 3½ In. Pipe.	1 In. Pipe to 6 In. Pipe.
Price.....each	2.00	2.00	2.25	3.00	4.00	6.00	12.00	18.00
Price, Extra Jaws..each	.67	.67	.75	1.00	1.33	2.00	4.00	6.00
Price, Extra Frames.....each	.25	.25	.33	.45	.55	.65	.75	1.00
Price, Extra Wood Handles..each	.15	.15	.20	.25	.30	.....	.....	.....
Price, Extra Steel Handles..each	.66	.66	.78	1.00	1.33	2.00	4.00	6.00
Price, Extra Nuts..each	.20	.20	.27	.35	.42	.50	.65	.80

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THE W. M. PATTISON SUPPLY CO. 1029 CLEVELAND

PIPE WRENCHES.

ATLAS.

FIG. 2861.

WESCOTT.

FIG. 2862.

Atlas Pipe Wrenches.

Length, Open.....inches	10	18	24	36
Grips.....	$\frac{1}{8}$ in. Wire to 1 in. pipe	$\frac{1}{4}$ to 2 inch Pipe	$\frac{1}{2}$ to 3 inch Pipe	1 to $4\frac{1}{2}$ inch Pipe
Price.....each	2.25	4.00	6.00	12.00

Wescott Pipe Wrenches.

Length.....inches	6	8	10	12	14
Takes Pipe.....inches	$\frac{1}{8}$ to $\frac{3}{8}$	$\frac{1}{8}$ to $\frac{3}{4}$	$\frac{1}{8}$ to 1	$\frac{1}{8}$ to $1\frac{1}{4}$	$\frac{1}{8}$ to $1\frac{1}{2}$
Price .....each	1.00	1.25	1.50	2.00	2.50

BEMIS AND CALLS', COMBINATION.

FIG. 2863.

GIFFORD, FOR BRASS PIPE.

FIG. 2864.

Bemis and Calls' Combination Wrenches.

Size.....inches	10	12	15	18
Takes Pipe.....inches	$\frac{1}{4}$ to 1	$\frac{1}{4}$ to $1\frac{1}{2}$	$\frac{1}{2}$ to 2	$\frac{1}{2}$ to 3
Price, Bright, with Long Nut.....per dozen	25.25	28.50	40.50	72.00

Gifford Brass Pipe Wrenches.

Size.....inches	10	14
Takes Pipe.....inches	$\frac{1}{8}$ to $\frac{3}{4}$	$\frac{1}{8}$ to $1\frac{1}{2}$
Price.....each	4.00	5.00

FLANGE WRENCHES.

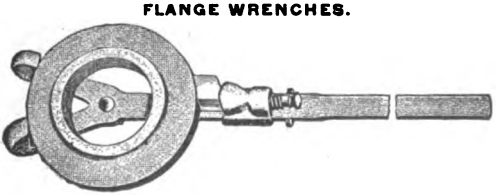

FIG. 2865.

Number	1	2	3
Length.....inches	48	72	84
Takes Flanges, Diameter.....inches	4 to 10	8 to 16	14 to 26
Weight.....pounds	20	65	85
Price.....each	15.00	25.00	40.00

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CHAIN PIPE TONGS.

TRIMO BULL DOG.

FIG. 2866.

Number	10	11	12	13	14	15	16
Length.....inches	13¾	20	27	37	45	54	65
Takes Pipe.....inches	⅛ to 1	⅛ to 2	¼ to 3	¾ to 6	1 to 8	1¼to10	2 to 12
Price, with Flat Link Chain each	2.50	3.50	5.00	7.00	9.00	11.00	18.00
Price, with Cable Chain.....each	2.25	3.25	4.50	6.25	7.70	9.50	16.00
Price, Extra Flat Link Chains..each	.75	1.00	1.50	2.50	3.25	4.00	6.00
Price, Extra Cable Chains..each	.50	.75	1.00	1.75	2.00	2.50	4.00
Price, Extra Jaws.....per pair	1.00	1.75	2.75	4.00	4.75	5.50	7.50

ROBBINS.

FIG. 2867.

Number	2	3	4	5	6	7
Length.....inches	24¾	36	48	60	72	84
Takes Pipe .....inches	1 to 2	1¼ to 4	2 to 6	2½ to 8	4 to 10	4 to 16
Diameter of Chain (Link) .....inches	5/16	5/16	⅜	7/16	½	⅝
Average Weight.....pounds	7	12	24	33	50	115
Price.....each	5.50	6.25	9.00	12.50	16.00	30.00

VULCAN.

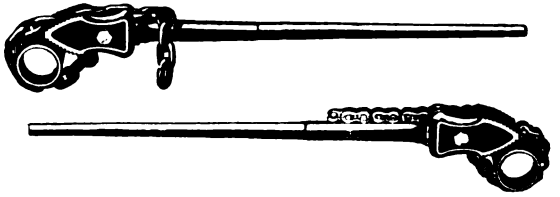

FIG. 2868.

Number	10	11	12	13	13½	14	15	16
Length.....inches	13¾	20	27	37	44½	50½	64½	87
Takes Pipe.....inches	⅛ to ¾	⅛ to 1½	¼ to 2½	¾ to 4	1 to 6	1½ to 8	2 to 12	4 to 18
Price, with Flat Link Chain...each	2.50	3.50	5.00	7.00	9.00	11.00	18.00	40.00
Price, with Cable Chain..each	2.25	3.25	4.50	6.25	7.75	9.50	16.00	40.00
Price, Extra Flat Link Chains each	.75	1.00	1.50	2.50	3.25	4.00	6.00	13.00
Price, Extra Cable Chains..each	.50	.75	1.00	1.75	2.00	2.50	4.00	13.00
Price, Extra Jaws...per pair	1.00	1.75	2.75	4.00	4.75	5.50	7.50	16.00

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PIPE CUTTERS.

SAUNDERS.

FIG. 2869.

TRIMO.

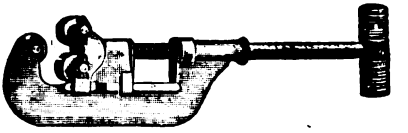

FIG. 2870.

Saunders Pipe Cutters.

Number	1	2	3	4
Cuts Pipe.....inches	⅛ to 1	1 to 2	2 to 3	2½ to 4
Price.....each	3.00	4.50	11.00	18.00
Price, Extra Wheels.....each	.24	.32	.60	.60
Price, Extra Rollers.....each	.24	.32	.50	.50
Price, Extra Pins.....each	.10	.10	.15	.15
Price, Extra Blocks and Wheels.....each	1.25	1.75	2.75	3.50

Trimo Pipe Cutters.

Number	1	2	3
Cuts Pipe.....inches	⅛ to 1¼	½ to 2	1¼ to 3
Price.....each	4.50	6.00	10.00
Price, Extra Wheels.....each	.30	.30	.40
Price, Extra Rollers.....each	.30	.30	.40
Price, Extra Nuts.....each	.35	.35	.40
Price, Extra Fork Block Carrier.....each	.10	.10	.10
Price Extra Pins with Cotters.....per dozen	1.00	1.00	1.00
Price, Extra Anti-Friction Washers.....per dozen	.60	.60	.60

BARNES, THREE WHEEL.

FIG. 2871.

ANDERSON, FOR CAST IRON PIPE.

FIG. 2872.

Barnes Three Wheel Pipe Cutters.

Number	1	2	3	4	5
Cuts Pipe.....inches	⅛ to 1	½ to 2	1½ to 3	2½ to 4	4 to 6
Price.....each	4.50	6.00	10.00	20.00	30.00
Price, Extra Wheels.....each	.25	.30	.40	.50	.75
Price, Extra Pins.....each	.10	.10	.10	.20	.20
Price, Extra Handles.....each	1.00	1.25	2.25	4.50	.....

Anderson Pipe Cutters, For Cast Iron Pipe.

Number	0	1	2	3
Cuts Pipe.....inches	1½ to 4	2 to 8	8 to 16	14 to 24
Price.....each	40.00	50.00	65.00	80.00

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THE W. M. PATTISON SUPPLY CO. 1032 CLEVELAND

PIPE STOCK AND DIES

With Solid Dies.

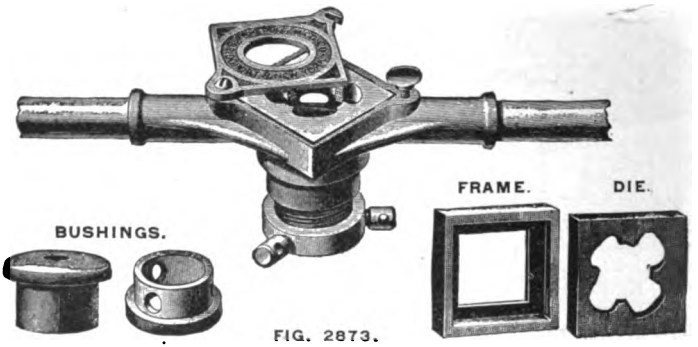

FIG. 2873.

Number.	Threads Pipe, Inches.	Dimensions of Dies, Inches.	Price, Complete, Each.	Price, Stocks Only, Each	Price, Extra Dies, Each.	Price, Extra Bushings, Each.	Price, Die Frames, Each.
0	$\frac{1}{8}$ to $\frac{1}{2}$	2 x $\frac{1}{2}$	9.50	3.50	1.50	.25	.....
1	$\frac{1}{4}$ to 1	$2\frac{1}{2}$ x $\frac{3}{4}$	15.00	5.00	2.00	.35	.30
$1\frac{1}{2}$	$\frac{3}{4}$ to $1\frac{1}{4}$	3 x $\frac{3}{4}$	13.50	6.00	2.50	.45	.40
$1\frac{3}{4}$	1 to $1\frac{1}{2}$	3 x $\frac{3}{4}$	13.50	6.00	2.50	.45	.40
2	$1\frac{1}{4}$ to 2	4 x $\frac{1}{1}$	20.00	9.50	3.50	.60	.50
3	$2\frac{1}{2}$ to 3	5 x $1\frac{1}{4}$	43.00	25.00	9.00	1.00	.60
$3\frac{1}{2}$	$2\frac{1}{2}$ to 3	5 x $1\frac{1}{4}$	51.00	33.00	9.00	1.00	.60

Numbers 2, 3 and $3\frac{1}{2}$ have Leader Screw.

RATCHET DIE STOCK WITH SOLID DIES.

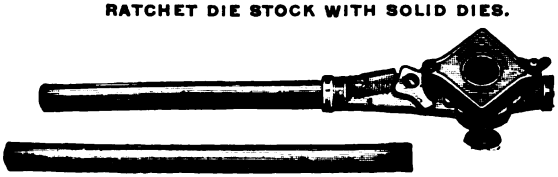

FIG. 2874.

Number.	Threads Pipe, Inches.	Dimensions of Dies, Inches.	Price, Complete Each.	Price, Stocks Only, Each.	Price, Extra Dies, Each.	Price, Extra Bushings Each.	Price, Die Frames, Each.	Space, Required Around Pipe to Cut Thread, Inches
A	$\frac{1}{8}$ to $\frac{3}{4}$	2 x $\frac{1}{2}$	13.00	7.50	1.10	.20	.....	$2\frac{1}{2}$
B	$\frac{1}{4}$ to 1	$2\frac{1}{2}$ x $\frac{3}{4}$	15.00	7.50	1.50	.25	.22	3
C	1 to $1\frac{1}{2}$	3 x $\frac{3}{4}$	18.50	13.00	1.80	.35	.30	$3\frac{1}{2}$
D	$1\frac{1}{4}$ to 2	4 x $\frac{1}{1}$	20.00	13.50	2.50	.45	.38	4
E	$2\frac{1}{2}$ to 3	5 x $1\frac{1}{4}$	43.00	29.00	7.00	.75	.45	5

Numbers C, D and E have Leader Screw.

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ADJUSTABLE PIPE STOCKS AND DIES.

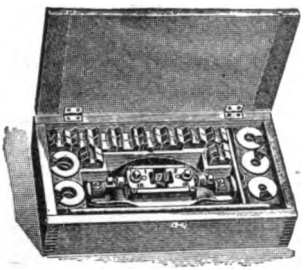

FIG. 2875.

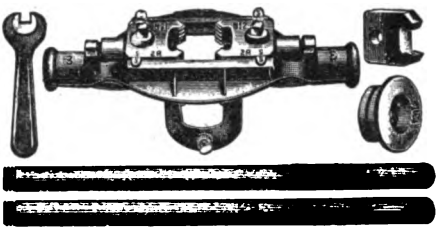

FIG. 2876.

Number.	Number of Dies.	Threads Pipe, Inches.	PRICE, EACH. Complete.	Stock Only.	Extra Dies Right or Left Hand.	Extra Bushings	Extra Collar Screws.	Extra Adjusting Screws.	Extra Thumb Screws.	Extra Wrenches.
1	4. Single End.	⅛ to ½	9.00	3.25	1.25	.20	.12	.10	.10	.25
2	5. Single End.	¼ to 1	12.00	4.00	1.50	.25	.12	.10	.10	.25
2½	4. Double End.	½ to 1¼	12.00	4.50	3.25	.40	.15	.15	.10	.25
3	3. Single End.	1¼ to 2	20.00	7.00	4.00	.50	.15	.15	.15	.50
4	3. Square.	1¼ to 2	18.00	7.00	3.00	.50	.....	.....	.15	.....
6	2. Double End.	2½ to 3	40.00	25.00	15.00	1.00	.25	.20	.....	.50
7	8. Double End.	2½ to 4	60.00	30.00	16.00	1.50	.25	.20	.....	.75

Prices for Dies are per set of two pieces, except No. 4, which is one sectional Die, and No. 7, which is per set of four pieces. Nos. 6 and 7 have four arms.

RATCHET ATTACHMENT FOR ADJUSTABLE PIPE STOCKS AND DIES.

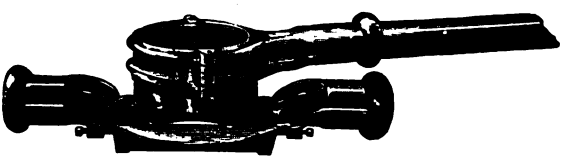

FIG. 2877.

For Stock Number.....	2	2½	3	4	6	7
Price..... .....each	2.50	3.00	3.50	3.50	5.00	5.00

Adjustable Stocks and Dies for Brass Pipe.

Number.....	2
Price, with Dies ⅝, ¾, ⅞, 1 and 1¼ inch.....each	15.00
Price, with Dies and Taps as above.....each	26.25

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THE W. M. PATTISON SUPPLY CO. 1034 CLEVELAND

ADJUSTABLE PIPE STOCKS AND DIES.

DUPLEX.

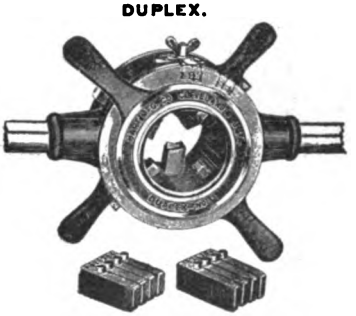

FIG. 2878.

DUPLEX RATCHET.

FIG. 2879.

Duplex.

Number	1	2	3	3½	4	5
Threads Pipe.....inches	⅛ to ¾	⅛ to 1¼	1 to 2	¼ to 2	1½ to 3	2½ to 4
Price, without Cut Off.....each	13.00	17.00	22.00	25.00	40.00	55.00
Price, with Cut Off.....each	16.00	20.00	25.00	28.00	45.00	60.00
Price, Extra Dies (4 pieces).....per set	1.50	1.75	2.00	2.00	3.50	4.00

Duplex Ratchet.

Number	8	9
Threads Pipe.....inches	1 to 2	2½ to 4
Price, without Cut Off.....each	25.00	60.00
Price, with Cut Off.....each	28.00	65.00
Price, Extra Dies (4 pieces).....per set	2.00	4.00

ADJUSTABLE BUSHINGS FOR STOCKS USING COMMON BUSHINGS.

FIG. 2880.

Number	1	2	2½	3	3 With Leader Screw Com.
For Stocks, Inches and Smaller	½	1	1¼	2	2
Price.....each	4.50	5.00	6.00	8.00	10.00

Nipple Holders for Adjustable Pipe Stocks and Dies, Page 1033.

For Stock Number	2	2	2½	2½	3	3	6	7	7
Size.....inches	⅜–½	⅜–1	½–¾	1–1¼	1–1¼	1½–2	2½–3	2½–3	3½–4
Price.....each	3.00	3.00	3.00	3.00	3.50	3.50	8.00	8.00	8.00

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THE W. M. PATTISON SUPPLY CO. 1035 CLEVELAND

MERRELL PIPE THREADING MACHINES

APEX NIPPLE AND PIPE MILL MACHINE.

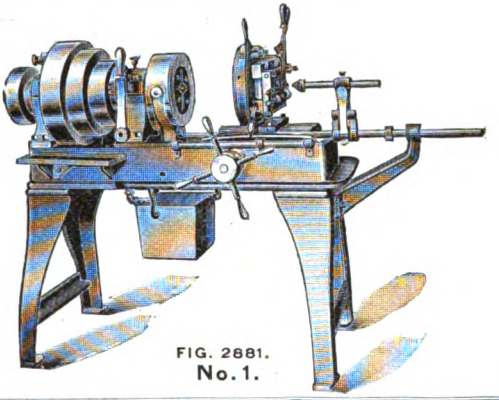

FIG. 2881.
No. 1.

Number	Threads Pipe, R. H. Only, Inches.	Price, Without Nipple Attachment, With Countershaft, Each.	Price, Nipple Attachment, Each.	Price, Extra Chasers, Per Set.	Price, Extra Grippers, Per Set.	Price, Extra Threaded Grippers, Per Set.	Speed of Countershaft, Revolutions.	Tight and Loose Pulleys, Inches.	3 Step Cone Pulley, Belt, Inches.	Weight, Pounds.
1	¼ to 2	350.00	100.00	5.00	4.00	12.00	300	12 x 3	2½	1500
2	1 to 4	550.00	150.00	5.00	5.00	18.00	160	14 x 5	5	2800
3	1 to 6	900.00	250.00	8.00	6.00	25.00	.....	.....	.....	.....

For Hand or Power.

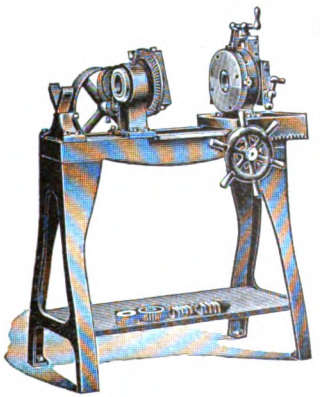

FIG. 2882.
No. 1.

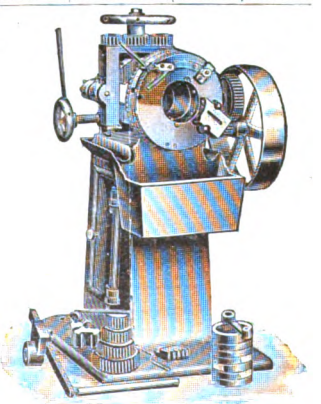

FIG. 2883.
No. 2.

Number.	Threads Pipe, R. H. Inches.	Number of Interchangeable Gears.	Price, for Hand, Each.	Price, for Power, Each.	Price, Extra Chasers, Per Set.	Price, Oil Pump, Each.	*Price, Countershaft, Each.	Speed of Countershaft, Revolutions.	Tight and Loose Pulleys, Inches.	Machine Pulley, Inches.	Weight, Pounds.
1	¼ to 2	4	100.00	120.00	5.00	20.00	10.00	300	12 x 3	12 x 3	500
2	1 to 4	6	145.00	175.00	5.00	20.00	10.00	250	12 x 3	16 x 3	775

* Countershaft for cutting Left Hand Threads; Regular Countershaft is included in price of machine.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

MERRELL PIPE THREADING MACHINES.

COMBINED HAND OR POWER.

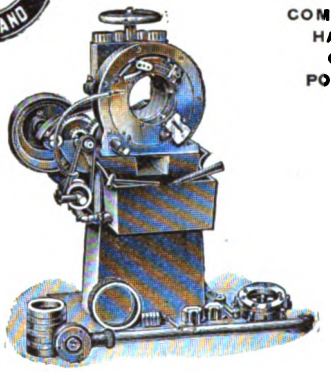

FIG. 2884.
Nos. 5½ and 6½

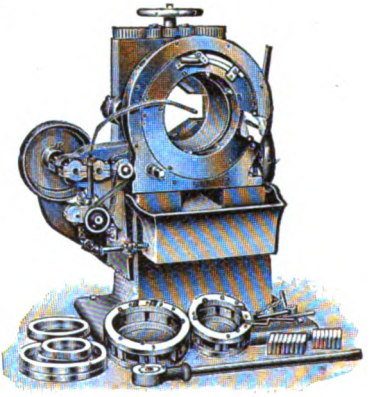

FIG. 2885.
Nos. 9½ and 11½.

POWER.

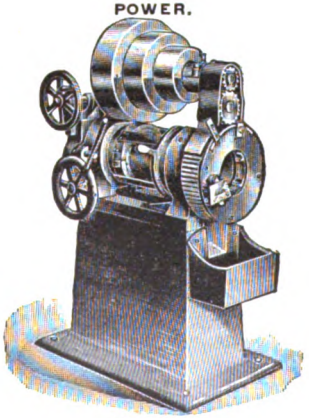

FIG. 2886.
Nos. 8 and 12.

PORTABLE, HAND.

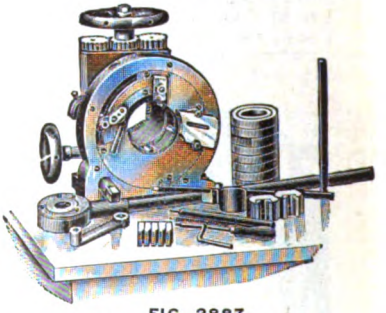

FIG. 2887.
Nos. 5, 6, 9 and 11.

Number.	Threads Pipe, R. H. Inches.	Price, Each.	Price, Extra Chasers Per Set.	Price, Oil Pump, Each.	*Price, Countersh'ft Each.	Speed of Countershaft, Revolutions.	Tight and Loose Pulleys, Inches.	Machine Pulley, Belt; Inches.	Weight Pounds
5½	1 to 4	200.00	5.00	20.00	10.00	300	12 x 3	1½	725
6½	1 to 6	300.00	5.00	20.00	10.00	300	12 x 3	2	1310
9½	2½ to 8	550.00	8.00	20.00	10.00	300	12 x 3	2½	1540
11½	4 to 12	1200.00	18.00	20.00	15.00	300	14 x 5	4	3300
8	1 to 6	500.00	5.00	20.00	10.00	200	14 x 5	4	1600
12	2½ to 8	900.00	8.00	20.00	15.00	200	14 x 6	5	2450
5	1 to 4	100.00	5.00	.....	.....	.....	.....	.....	275
6	1 to 6	190.00	5.00	.....	.....	.....	.....	.....	390
9	2½ to 8	350.00	8.00	.....	.....	.....	.....	.....	740
11	4 to 12	900.00	18.00	.....	.....	.....	.....	.....	1500

*Countershaft for cutting Left Hand Threads; Regular Countershaft is included in price of machine.

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THE W. M. PATTISON SUPPLY CO. 1037 CLEVELAND

BORDEN PIPE THREADING MACHINES.

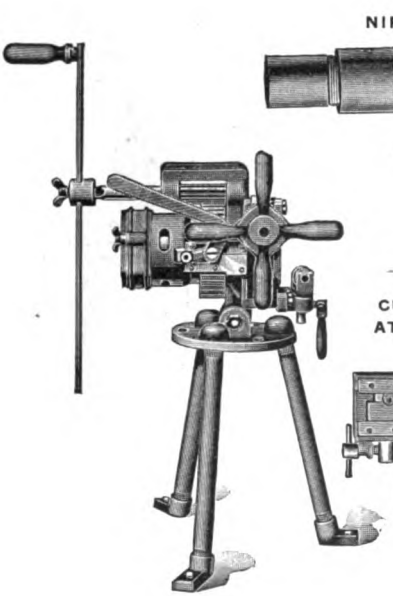
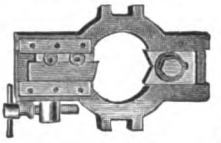


FIG. 2889.
No. A.

NIPPLE HOLDER.

FIG. 2888.



CUTTING OFF ATTACHMENT.

FIG. 2890.

FIG. 2891.
No. F.

Number	A	B	C	D	E	F	G
Threads Pipe.....inches	½ to 2	1 to 3	2½ to 4	1½ to 4	1 to 4	2½ to 6	5 to 8
Weight.....pounds	125	200	250	300	350	450	600
Price, Complete.....each	75.00	100.00	120.00	135.00	160.00	215.00	300.00
Price, without Legs.....each	73.00	97.00	116.00	131.00	156.00	210.00	294.00

Nipple Holder for A Machine 15.00 Extra.

Size, Inches.	Number of Chasers.	Thickness of Dies, Inches.	Price, Each.	Price, Inserting New Chasers, Per Set.	Price, Regrinding Dies, Each.
½	4	1 ¼	1.25	1.00	.20
¾	4	1 ¼	1.25	1.00	.20
1	4	1 ¼	2.25	1.50	.20
1¼	4	1 ¼	2.50	1.50	.20
1½	4	1 ¼	2.50	1.50	.20
2	4	1 ¼	2.75	1.50	.20
2½	5	1 ½	9.00	4.00	.25
3	5	1 ½	10.50	4.00	.25
3½	5	1 ½	12.00	4.00	.25
4	6	1 ½	16.50	6.50	.30
4½	6	1 ½	17.00	6.50	.30
5	6	1 ⅞	18.50	6.50	.30
6	6	1 ⅞	20.00	6.50	.30
7	8	2 ⅛	27.50	9.00	.40
8	8	2 ⅛	30.00	9.00	.40

Die Frames ½ to 2 inches, are Square Malleable Iron; 2½ to 8 inches, Octagon.

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THE W. M. PATTISON SUPPLY CO. 1038 CLEVELAND

EATON, COLE AND BURNHAM CO.'S PIPE THREADING MACHINES.

FOR HAND OR POWER, WITH SOLID DIES.

FIG. 2892.
No. 1.

NIPPLE AND PIPE MACHINE, FOR POWER; WITH ADJUSTABLE DIES.

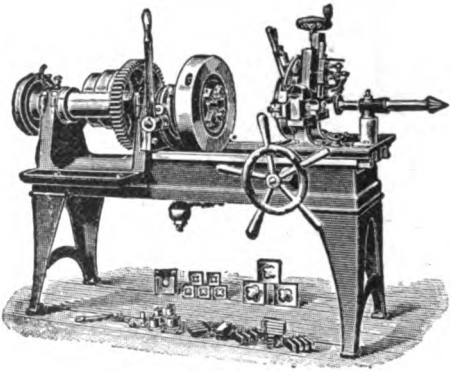

FIG. 2893.
No. 1½.

FOR POWER, WITH ADJUSTABLE DIES.

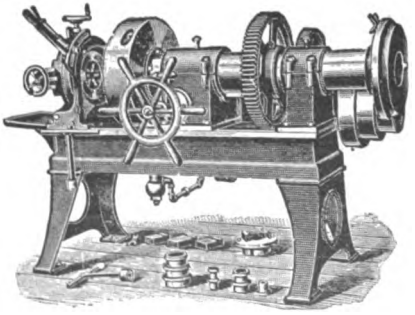

FIG. 2894.
No. 2.

NIPPLE AND PIPE MACHINE, FOR POWER; WITH ADJUSTABLE DIES.

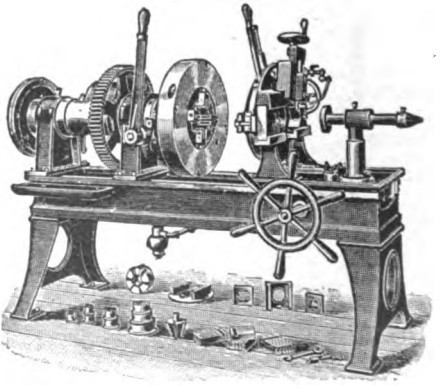

FIG. 2895.
No. 2½.

Number.	Threads Pipe, Inches.	Speed of Countershaft, Revolutions Per Minute.	Diameter of Countershaft Driving Pulleys, Inches.	Face of Tight Pulley, Inches.	Weight, Pounds.
1	¼ to 2	300	9½	3	660
1½	½ to 2	220	9½	3	1160
2	1 to 4	350	14	4	2275
2½	1 to 4	280	14	4	2800

Prices and Detail Description, given on application.

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THE W. M. PATTISON SUPPLY CO. 1039 CLEVELAND

EATON, COLE AND BURNHAM CO.'S PIPE THREADING MACHINES.

FOR POWER; WITH COUNTERSHAFT OR ENGINE ATTACHED, WITH ADJUSTABLE DIES.

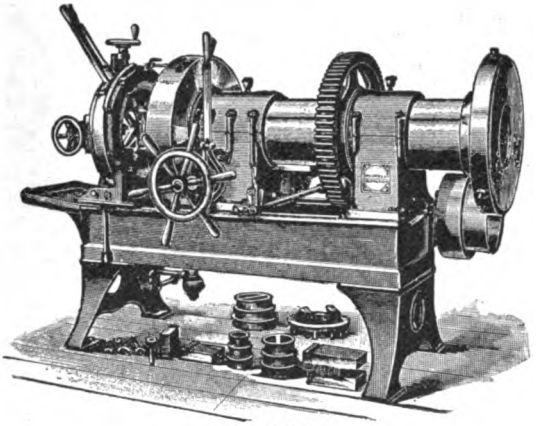

FIG. 2896.
Nos. 3 and 4.

FOR POWER; WITH COUNTERSHAFT OR ENGINE ATTACHED, WITH ADJUSTABLE DIES.

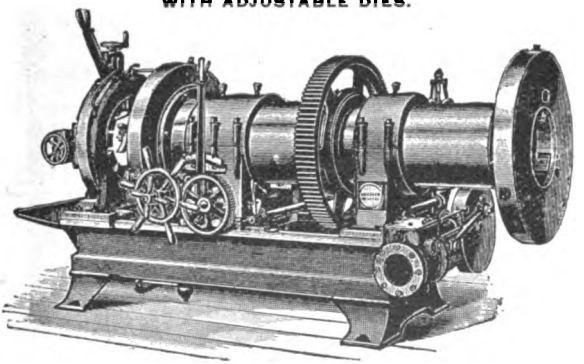

FIG. 2897.
No. 5.

Number.	Threads Pipe, Inches.	Speed of Countershaft, Revolutions per Minute.	Diameter of Countershaft Driving Pulleys, Inches.	Face of Pulleys, Inches.	ENGINE CYLINDER INCHES. Diameter	Stroke.	Weight, Countershaft Machine, Pounds.	Weight, Engine Machine, Pounds.
3	1 to 6	250	15	4	6	6	3820	4020
4	2½ to 8	225	15	4	6	6	4200	4500
4½	4 to 10	.....	.....	.....	.....	.....	.....	.....
5	6 to 12	300	15	4	7	8	8500	8950

Prices and Detail Description given on application.

Numbers 2, 3, 4 and 5 can be furnished with Electric Motors attached.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

BLACKSMITHS' POST DRILLS.

SELF FEED.

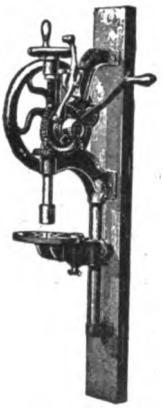

FIG. 2898.
No. 1.
BALL BEARING, SELF FEED.

BALL BEARING, SELF FEED.

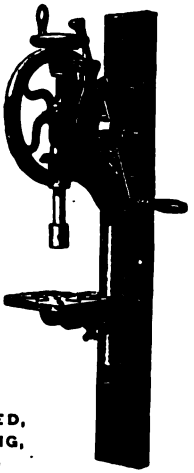

FIG. 2899.
No. 2.

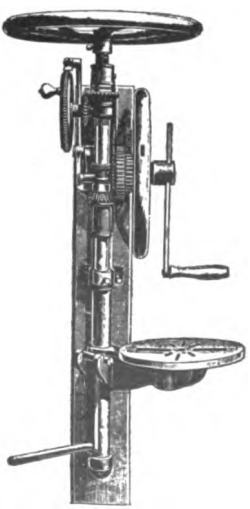

FIG. 2900.
No. 3.

THREE GEARED,
BALL BEARING,
SELF FEED.

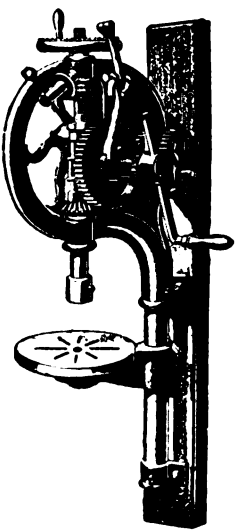

FIG. 2901.
No. 4.

Number.	Takes Straight Drill Shanks, Inches.	Size Holes Will Drill, Inches.	Drills to Center of Circle, Inches.	Weight, Pounds.	Price Hand, Each.	Price For Power, Each.
1	$\frac{1}{2}$–$\frac{5}{8}$–$\frac{41}{64}$	$\frac{1}{64}$ to 1	14	95	8.00	11.00
2	$\frac{1}{2}$–$\frac{5}{8}$–$\frac{41}{64}$	$\frac{1}{64}$ to 1$\frac{1}{4}$	16	130	12.50	15.50
3	$\frac{1}{2}$–$\frac{41}{64}$	0 to 1$\frac{3}{8}$	18	215	24.00	28.00
4	$\frac{1}{2}$–$\frac{5}{8}$–$\frac{41}{64}$	$\frac{1}{64}$ to 1$\frac{1}{2}$	20	240	25.00	29.00

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BLACKSMITHS' POST DRILLS.

THE W. M. PATTISON SUPPLY CO. 1041 CLEVELAND

FAST AND SLOW FEED.

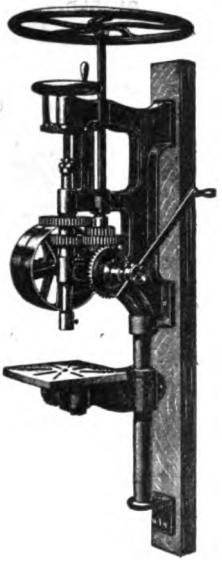

FIG. 2902.
No. 5.

AUTOMATIC SELF FEED.

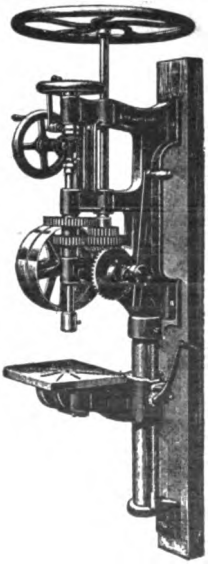

FIG. 2904.
No. 7.

FAST AND SLOW SELF FEED.

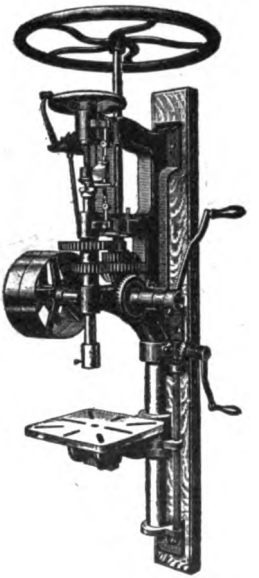

FIG. 2903.
No. 6.

Number.	Takes Straight Drill Shanks, Inches.	Size Holes Will Drill, Inches.	Drills to Center of Circle, Inches.	Size Pulley, Inches.	Weight, Pounds.	Price, Hand, Each.	Price, For Power, Each.
5	$\frac{1}{2}$–$\frac{1}{64}$	0 to $1\frac{1}{2}$	21	$10\frac{3}{4}$x$2\frac{1}{2}$	300	33.50	37.50
6	$\frac{1}{2}$–$\frac{1}{64}$	0 to $1\frac{1}{2}$	21	$10\frac{3}{4}$x$2\frac{1}{2}$	315	38.50	42.50
7	$\frac{1}{2}$–$\frac{1}{64}$	0 to $1\frac{1}{2}$	21	10 x$2\frac{1}{2}$	325	40.00	44.00

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THE W. M. PATTISON SUPPLY CO. 1042 CLEVELAND

PORTABLE FORGES.

HALF HOOD.

FIG 2905.

SHIELD.

FIG. 2906.

SHIELD.

FIG. 2907.

Number.	Description, Dimensions and Weights.	Price, Each.
1	Half Hood; Fan 14½ in., Height 30 in., Hearth 33½x46 in., Wt. 300 lbs, With Coal or Water Tank	50.00
1	With Extra Water Tank	55.00
2	Half Hood; For Power, Dimensions and Weight same as No. 1, With Coal or Water Tank	53.00
2	With Extra Water Tank	58.00
2	Without Extra Water Tank With Hand Power	57.00
2	With Extra Water Tank and Hand Power	62.00
3	With Shield; Fan 12 in., Height 30 in., Hearth 23x35 in., Weight, 145 lbs.	36.00
4	Half Hood; Dimensions same as No. 3, Weight 150 lbs.	40.00
5	Square Closed Hood; Dimensions and Weight same as No. 4	42.00
5	With Power Attachment	47.00
5	With Hand Lever and Power Attachment.	50.00
6	Half Hood; For Power, Dimensions and Weight same as No. 4.	45.00
6	With Hand Lever and Power Attachment	48.00
7	With Shield; Fan 9 in.. Height 33 in., Hearth 22 in., Weight 95 lbs	24.00
8	Half Hood; Dimensions same as No. 7 Weight 100 lbs.	27.00
9	Half Hood; Fan 14½ in., Height 30 in., Hearth 31x45 in., Wt. 290 lbs. without Water Tank	50.00
9	With Water Tank	55.00
9	With Power Attachment	27.50
10	With Shield; Fan 12½ in., Height 30 in., Hearth 23x35 in., Weight 130 lbs.	36.00
11	Half Hood; Dimensions same as No. 10, Weight 135 lbs.	40.00
12	With Shield; Fan 9½ in., Height 33 in., Hearth 22 in., Weight 90 lbs	24.00
13	Half Hood; Dimensions and Weight same as No. 12	27.00

Nos. 1 to 8 have adjustable Brass Bearings with Oil Cups.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1043

PORTABLE FORGES.

With Adjustable Ball Bearings.

HALF HOOD.

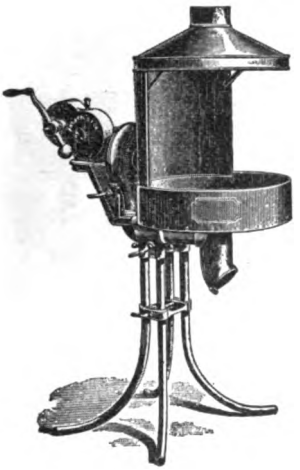

FIG. 2908.

SHIELD.

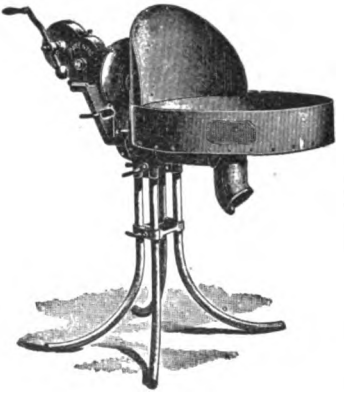

FIG. 2909.

DRUM.

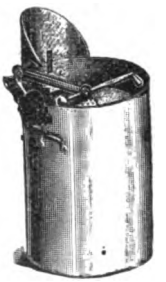

FIG. 2910.

Number.	DESCRIPTION, DIMENSIONS AND WEIGHTS. Height of All Forges 30 Inches.	Price, Each.
401	With Shield; Fan 9 in., Hearth 18 in., Weight 90 lbs.....	35.00
402	Half Hood; Dimensions and Weight same as No. 401, ...	38.00
403	Closed Hood; Dimensions same as No. 401, Weight 100 lbs.....	40.00
401½	With Shield; Fan 9 in., Hearth 22 in., Weight 100 lbs.....	40.00
402½	Half Hood; Dimensions same as No. 401½, Weight 105 lbs.....	43.00
403½	Full Hood; Dimensions same as No. 401½, Weight 110 lbs.....	45.00
401¾	With Shield; Fan 10 in., Hearth 24 in., Weight 110 lbs.....	45.00
402¾	Half Hood; Dimensions same as No. 401¾, Weight 115 lbs.....	48.00
403¾	Full Hood; Dimensions same as No. 401¾, Weight 120 lbs.....	50.00
404	With Shield; Fan 9 in., Hearth 24x24 in., Weight 110 lbs.....	45.00
405	Half Hood; Dimensions same as No. 404, Weight 120 lbs.....	49.00
406	With Shield, Fan 10 in., Hearth 30x30 in., Weight 160 lbs...	55.00
407	Half Hood; Dimensions same as No. 406, Weight 175 lbs	60.00
408	Half Hood; Fan 12 in., Hearth 30x36 in., Weight 225 lbs.....	65.00
409	Half Hood; Fan 12 in., Hearth 30x40 in., Weight 250 lbs.....	70.00
411	Drum Forge; Fan 9 in., Hearth 18 in, Weight 90 lbs.....	45.00

If Nos. 406, 407 and 408 are furnished with Water Tank add 5.00.

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THE W. M. PATTISON SUPPLY CO. 1044 CLEVELAND

FORGES.

STATIONARY BLAST FORGE.

FIG. 2911.
No. 1.

STATIONARY BLAST FORGE.

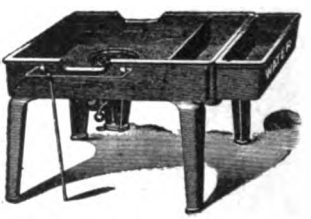

FIG. 2912.
Nos. 2 and 3.

Number.	Description, Dimensions and Weights.	Price, Each.
1	Height 30 in., Hearth 33½ x 46 in., Length Over All 54 in., Weight 200 lbs., Plain with One Tank	25.00
1	Plain, With Extra Water Tank	30.00
1	With Half Hood and One Tank	30.00
1	With Half Hood and Extra Water Tank	35.00
2	Weight 26 in., Hearth, 39x41, Over All 39x52 in., Weight 350 lbs., Plain	35.00
2	Plain, With Water Tank	40.00
2	With Half Hood	40.00
2	With Half Hood and Water Tank	45.00
3	Height 26 in., Hearth, 39x52, Over All 39x63 in., Weight 400 lbs., Plain	40.00
3	Plain, With Water Tank	45.00
3	With Half Hood	45.00
3	With Half Hood and Water Tank	50.00

These Forges are intended for use in shops supplied with Power Blast, or can be used with ordinary bellows or blower, if desired.

Fig, 2911, has perfect fire pot with W. C. Goose Nest for securely holding clay, also side and center blast Tuyere Ball, Tool Rest, &c.

Fig. 2912, has W. C. extension top fire pot, with side and center blast Tuyere Ball, Tool Rest and Rack and Lever Attachment to Blast Gate.

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THE W. M. PATTISON SUPPLY CO. 1045 CLEVELAND

BLACKSMITHS' BLOWERS.

ANGLE STEEL FRAME.

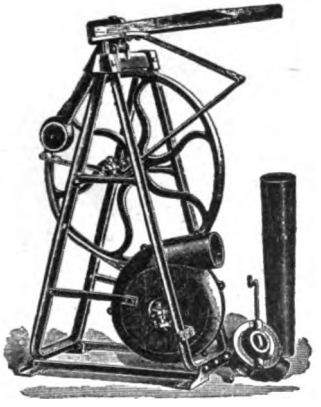

FIG. 2913

ADJUSTABLE BALL BEARING.

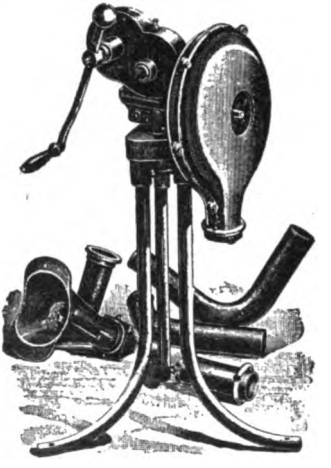

FIG. 2914.

Angle Steel Frame Blacksmiths' Blowers.

Price, with 16 in. Fan, 26½ in. Flywheel, Tuyere and Piping	each	20.00
Price, same as above with Lever and Crank Motion	each	25.00

Adjustable Ball Bearing Blacksmiths' Blowers.

Price, with 12 in. Fan, Tuyere Iron and Piping	each	37.00

IG. 2915.

Cog Geared Blacksmith Blower.
12 inch Fan, Cut Gears.

Price, with Tuyere and Piping	each	12.50

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1046

BLAST GATES.

SLIDE PATTERN.

FIG. 2916.

LEVER PATTERN.

FIG. 2917.

Size.....inches	2	2½	3	4	5	6	8
Price.....each	1.00	1.25	1.50	2.00	2.25	2.50	3.50
Size.....inches	10	12	14	16	18	20	24
Price.....each	5.00	6.50	8.00	12.00	16.00	18.00	21.00

COUNTERSHAFTS FOR STEEL PRESSURE BLOWERS.

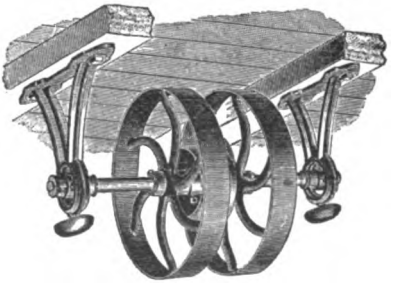

FIG 2918.

Number of Steel Pressure Blower.	Diameter of Pulley Driving Blower, Inches.	Diameter of Pulley Driven by Main Belt, Inches.	Diameter of Shaft, Inches.	Price, With One Driving Pulley, Each.	Number of Steel Pressure Blower.	Diameter of Pulley Driving Blower, Inches.	Diameter of Pulley Driven by Main Belt, Inches.	Diameter of Shaft, Inches.	Price, With One Driving Pulley, Each.	Price, With Two Driving Pulleys, Each.
1	12	4	1	8.00	7	30	10	1¾	30.00	35.00
2	14	5	1	10.00	8	32	12	2	40.00	45.00
3	16	6	1¼	12.00	9	36	14	2¼	50.00	60.00
4	18	7	1¼	16.00	10	40	16	2½	70.00	80.00
5	21	8	1½	20.00	11	42	17	2¾	80.00	90.00
6	26	9	1½	25.00	11½	44	18	3	90.00	100.00
.....	.....	.....	.....	.....	12	44	18	3	100.00	110.00

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THE W. M. PATTISON SUPPLY CO. 1047 CLEVELAND

STEEL PRESSURE BLOWERS.

For Foundry Cupolas, Forge Fires, Etc.

FIG. 2919.

Number.	Height, Inches.	Outside Diam. of Outlet, Inches.	Diam. of Pulley, Inches.	Face of Pulley, Inches.	Diam. of Bearing, Inches.	Length of Bearing, Inches.	Price, Without Countershaft, Each.	Price, With Countershaft, Each.
1	12½	3⅝	2½	1¾	⅝	3⅝	12.00	20.00
2	15	4	2½	2¼	⅞	3¾	18.00	28.00
3	20	4⅝	3¼	2⅝	⅞	5	26.00	38.00
4	24	5⅛	4	3	1	5½	36.00	52.00
5	26	5½	4½	3	1⅛	6	44.00	64.00
6	30	6¼	4½	3½	1¼	6½	55.00	80.00
7	35	7¼	5	4⅛	1⅜	7¼	70.00	100.00
8	40	8⅝	6	4½	1½	7½	90.00	130.00
9	45	10	7	5	1⅝	8¼	115.00	170.00
10	56	12¼	8	5¾	1¾	8⅝	160.00	230.00
11	66	14⅜	9	6¼	1⅞	9⅝	225.00	300.00
11½	76	16½	10	7	2	10	275.00	350 00
12	80	18	10	8	2	11	325.00	400.00

On Adjustable Bed.

Number.	Outside Diam. of Outlet, Inches.	Diameter of Pulley, Inches.	Face of Pulley, Inches.	Price, Without Countershaft, Each.	Price, With Countershaft, Each.
6	6¼	4½	3½	90.00	120.00
7	7¼	5	4½	100.00	135.00
8	8⅝	6	4½	130.00	175.00
9	10	7	5	170.00	230.00
10	12¼	8	5¾	265.00	350.00
11	14⅜	9	6¼	330.00	435.00
11½	16½	10	7	380.00	500.00
12	18	10	8	475.00	625 00

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THE W. M. PATTISON SUPPLY CO. 1048 CLEVELAND

IMPROVED COUNTERSHAFTS.

For B Volume Blowers and Exhausters.

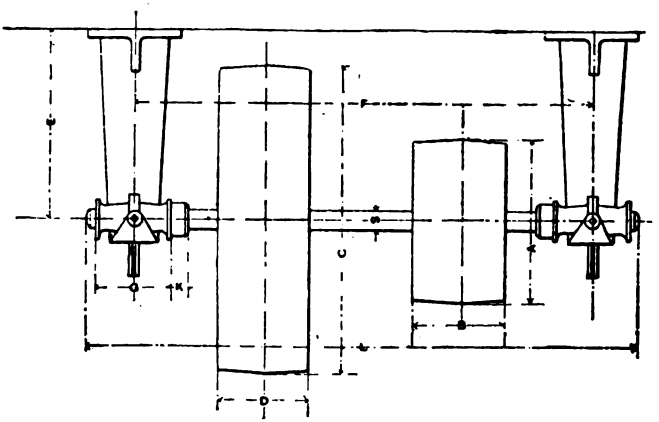

FIG. 2920.

Number of Countershaft.	Number of B Blower or Exhauster.	Dimensions, Inches.										Price, Each.
		S	L	A	B	C	D	E	F	G	K	
000	000	1	20	5	4	14	2¼	8½	15	3½	1	10.00
1	1	1⅛	22¾	6	4	16	2¼	9¼	18½	4	1⅛	12.00
2	2	1¼	25⅞	7	4½	18	2⅝	9¼	21⅛	4½	1½	14.00
3	3	1⅜	28	8	4½	21	3¼	10¾	22¾	5	1¾	18.00
4	4	1⅝	31	9	5	26	4	12⅞	25¼	5½	2	24.00
5	5	1¾	34¼	10	5½	30	4½	15⅛	28	6	2¼	30.00
6	6	2	37¾	12	6	32	5½	16¼	31	6½	2½	40.00
7	7	2¼	40¼	14	6	36	6½	18⅛	33	7	2¾	50.00
8	8	2½	46¾	16	8	40	7½	20½	39	7½	3	65.00
9	9	2¾	51	18	8	42	8½	23½	40	9	3	80.00
10	10	3	56	20	9	44	10	23½	45	9	3¼	85.00

Tight and Loose Pulleys furnished at an additional cost.

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THE W. M. PATTISON SUPPLY CO. 1049 CLEVELAND

B. VOLUME BLOWERS AND EXHAUSTERS.

VOLUME BLOWER.

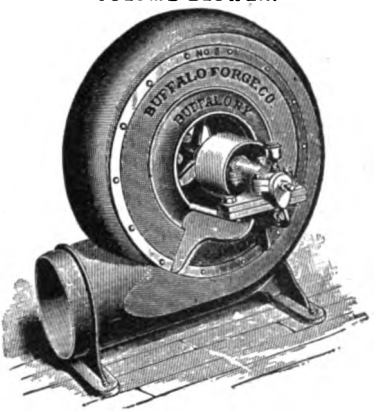

FIG. 2921.

VOLUME EXHAUSTER.

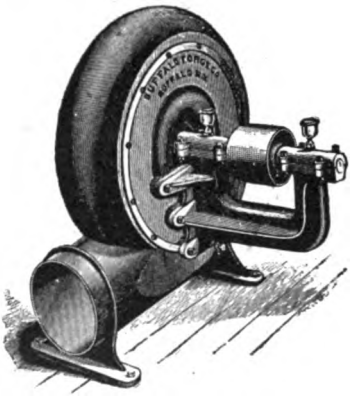

FIG. 2922.

Volume Blowers and Exhausters.

Number.	Height, Inches.	Outside Diameter of Outlet, Inches.	Diameter of Inlet of Volume Exhausters, Inches.	Diameter of Pulley, Inches.	Face of Pulley, Inches.	Price, Each.
000 B	14½	4½	4½	2¾	2½	15.00
1 B	15¾	5	5	3	2½	20.00
2 B	20¼	6	6	3¼	2⅝	25.00
3 B	25	7½	7½	4	3½	33.00
4 B	29	9	9	5	4	44.00
5 B	32	10½	10½	5¾	4½	55.00
6 B	37½	12	12	6½	5½	70.00
7 B	43	14	14	7½	6½	90.00
8 B	48	16½	16	8½	7½	150.00
9 B	55	18	18	9½	8½	200.00
10 B	68	21	21	12	10	250.00

Volume Blowers on Adjustable Bed.

Number.	Outside Diameter of Outlet, Inches.	Diameter of Pulley, Inches.	Face of Pulley, Inches.	Price, Without Countershaft, Each.	Price, With Countershaft, Each.
5 B	10½	5¾	4½	100.00	135.00
6 B	12	6½	5½	130.00	175.00
7 B	14	7½	6½	170.00	230.00
8 B	16½	8½	7½	265.00	350.00
9 B	18	9½	8½	380.00	500.00
10 B	21	12	10	475.00	625.00
11 B	24	14	12	550.00	700.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STEEL PLATE PLANING MILL EXHAUSTERS.

DOUBLE TYPE WITH OVERHUNG WHEELS.

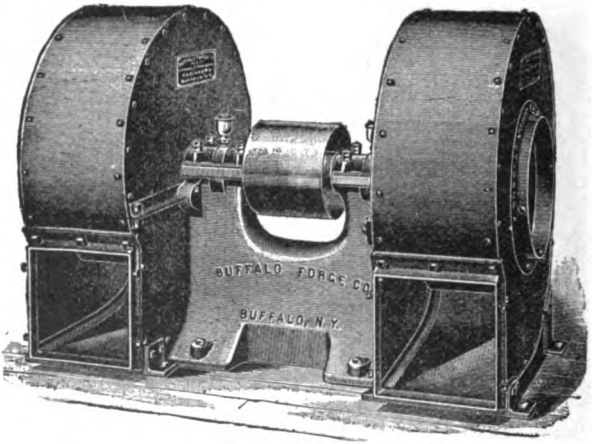

FIG. 2923.

Single Type.

Size, Inches.	Outside Diameter of Inlet, Inches.	Outside Size of Outlet, Inches.	Diameter of Pulley, Inches.	Face of Pulley, Inches.	Price, Each.
30	$11\frac{3}{16}$	$9\frac{1}{2}$ x $9\frac{1}{2}$	6	$4\frac{1}{2}$	55.00
35	$13\frac{1}{16}$	$11\frac{1}{4}$ x $11\frac{1}{4}$	7	$5\frac{1}{2}$	70.00
40	$14\frac{7}{8}$	$13\frac{1}{2}$ x $13\frac{1}{2}$	8	6	90.00
45	$17\frac{7}{8}$	15 x 15	9	$6\frac{1}{2}$	115.00
50	19	$16\frac{1}{4}$ x $16\frac{1}{4}$	10	7	150.00
55	20	18 x 18	11	8	185.00
60	$22\frac{1}{2}$	$19\frac{3}{4}$ x $19\frac{3}{4}$	$11\frac{1}{2}$	9	200.00
70	$24\frac{3}{4}$	22 x 22	12	10	250.00
80	$30\frac{1}{2}$	26 x 26	14	$10\frac{1}{2}$	300.00

Double Type.

Size, Inches.	Outside Diameter of Inlets, Inches.	Outside Size of Outlets, Inches.	Diameter of Pulley, Inches.	Face of Pulley, Inches.	Price, Each.
30	$11\frac{3}{16}$	$9\frac{1}{2}$ x $9\frac{1}{2}$	8	7	90.00
35	$13\frac{1}{16}$	$11\frac{1}{4}$ x $11\frac{1}{4}$	9	8	100.00
40	$14\frac{7}{8}$	$13\frac{1}{2}$ x $13\frac{1}{2}$	10	9	130.00
45	$17\frac{7}{8}$	15 x 15	11	$9\frac{1}{2}$	170.00
50	19	$16\frac{1}{4}$ x $16\frac{1}{4}$	12	10	210.00
55	$20\frac{3}{4}$	18 x 18	13	11	275.00
60	$22\frac{1}{2}$	$19\frac{3}{4}$ x $19\frac{3}{4}$	14	12	335.00

Can be furnished with top or bottom discharge, Right or Left Hand.

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THE W. M. PATTISON SUPPLY CO. 1051 CLEVELAND

POSITIVE BLOWERS.

Has no Gears; Noiseless; Self Oiling Phosphor Bronze Bearings.

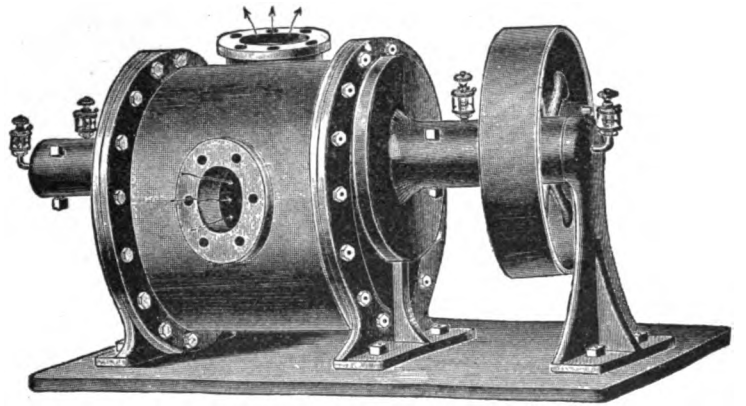

FIG. 2924.

Number.	Price Each.	Diameter, Inlet and Outlet, Inches.	Discharge per Revolution, Cubic Inches and Feet.	Speed.	Diameter and Width of Blower Inside, Inches.	Cubic Feet Per Minute.	HORSE POWER REQUIRED AT VARIOUS PRESSURES. 1 Pound.	2 Pounds.	3 Pounds.	5 Pounds.	Size of Pulley, Inches.	Floor Space, Extreme, Inches.
00	30.00	1	70 in	400	7x3	16	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	8x3	14x 8
0	35.00	$1\frac{1}{4}$	170 in	350	9x4	35	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{4}$	1	10x3	18x10
X	55.00	$2\frac{1}{2}$	$\frac{1}{4}$ ft	300	10x6	75	1	1	$1\frac{1}{4}$	2	12x3	20x12
$\frac{1}{8}$	70.00	$2\frac{1}{2}$	$\frac{3}{8}$ ft	300	10x9	112	1	$1\frac{1}{4}$	$1\frac{3}{4}$	3	12x4	29x12
$\frac{1}{4}$	100.00	3	$\frac{7}{16}$ ft	250	12x10	175	$1\frac{3}{4}$	2	3	5	14x4	26x14
$\frac{1}{2}$	150.00	5	$1\frac{3}{4}$ ft	200	18x12	350	2	4	6	10	20x5	36x18
1	200.00	8	$3\frac{3}{4}$ ft	175	24x15	656	4	7	10	16	26x6	40x24
2	300.00	10	$6\frac{1}{4}$ ft	175	24x24	1094	6	10	15	25	30x6	50x24
3	375.00	12	14 ft	150	36x24	2100	12	21	30	50	43x6	72x36
4	490.00	14	21 ft	150	36x36	3150	18	32	50	90	43x6	96x36

No. 4 Blower is equipped with two Driving Pulleys.

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THE W. M. PATTISON SUPPLY CO. 1052 CLEVELAND

A. B. C. DISC VENTILATING FANS.

WITH STANDARD BASE AND PULLEY; FANS, 18 TO 72 INCHES.

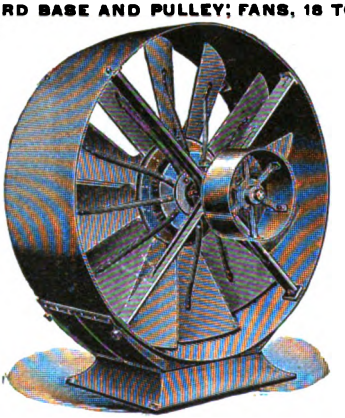

FIG. 2926.

Diameter of Fan, Inches.	Price, Each.	PULLEY.		BASE.		Diameter of Shaft, Inches.	Width of Case, Inches.	Revolutions per Minute.	Capacity per Minute, Cubic Feet.	Weight, Pounds.
		Diameter, Inches.	Face, Inches.	Size, Inches.	Height, Inches.					
18	37.50	4	2¼	13½x12	2¾	⅝	10	1300 to 1800	5000	90
21	42.00	5	3¼	13½x12	2¾	⅝	10	1200 to 1700	7000	116
24	47.50	6	3¼	20 x 16	4	1 3/16	12¾	1000 to 1500	9000	185
30	60.00	8	4¼	19½x22	4	1 3/16	12¾	900 to 1200	12000	221
36	78.00	10	4¼	22 x 22	4	1 5/16	15½	700 to 950	18000	320
42	93.00	12	5¼	24 x 28	4	1 7/16	17	600 to 900	25000	432
48	115.50	13	5¼	24 x 28	4	1 9/16	19¼	500 to 800	30000	594
54	147.00	14	6¼	28 x 38	4	1 11/16	21½	450 to 750	40000	670
60	184.50	16	6¼	28 x 38	4	1 13/16	21½	350 to 500	50000	796
72	231.00	18	7¼	28 x 38	4	2 1/16	24	250 to 400	75000	1149
84	400.00	20	7¼	.....	.....	2 1/16	28	225 to 350	100000	1260
96	500.00	24	7¼	.....	.....	2 1/16	28	200 to 300	125000	1475
108	600.00	28	8¼	.....	.....	3 1/16	36	175 to 250	160000	2625
120	700.00	30	9¼	.....	.....	3 1/16	36	150 to 225	200000	2850
132	900.00	32	10¼	.....	.....	4 1/16	36	140 to 210	240000	3500
144	1100.00	34	12¼	.....	.....	4 1/16	36	125 to 200	280000	4300

Fans 84 inches and larger are furnished with Angle Iron Flanges.

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THE W. M. PATTISON SUPPLY CO. 1053 CLEVELAND

DISC WHEELS.

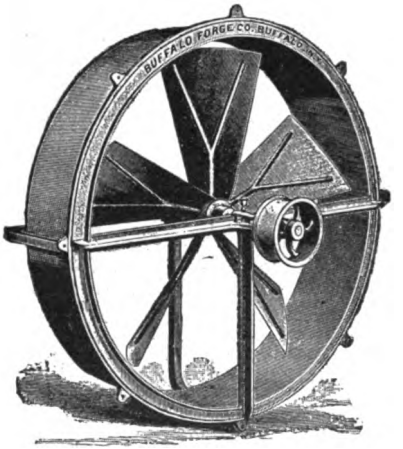

FIG. 2926.

Disc Wheels With Overhung Pulleys.

Diameter of Fan, Inches.	Diameter of Pulley, Inches.	Face of Pulley, Inches.	Price, Each.	Diameter of Fan, Inches.	Diameter of Pulley, Inches.	Face of Pulley, Inches.	Price, Each.
18	4	2	40.00	48	9	4	125.00
24	4	2	50.00	54	9	4	175.00
30	6	2	65.00	60	10	5	250.00
36	7	3	85.00	72	12	5½	300.00
42	8	3½	110.00	84	14	6	350.00

Disc Wheels With Direct Attached Engines.

Diameter of Fan, Inches.	Size of Engine, D. S. A.	Steam, Inches.	Exhaust, Inches.	Price, Each.
36	2 x 3	1	1¼	175.00
42	2½ x 3	1	1¼	210.00
48	3 x 3	1	1¼	230.00
54	3½ x 4	1¼	1½	355.00
60	4 x 4	1¼	1½	415.00
72	4½ x 5	1½	2	500.00
84	5 x 5	1½	2	540.00

Disc Wheels With Direct Attached Electric Motors.

Diameter of Fan, Inches.	Speed.	Motor, Horse Power.	Amperes.	Voltage.	Price, Each.
18	1000	1¼	1.5	115	220.00
24	775	1½	3.	115	300.00
30	650	1	5.	115	360.00
36	600	2	10.	115	490.00
42	550	4	20.	115	650.00
48	500	5	25.	115	750.00
54	450	7½	27.5	115	975.00
60	400	10	30.	115	1200.00
72	350	15	30.	115	1500.00

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BLACKSMITHS' TOOLS.

TOP SWAGE. BOTTOM SWAGE. TOP FULLER. BOTTOM FULLER.

FIG. 2927. No. 1190. FIG. 2928. No. 1200. FIG. 2929. No. 1210. FIG. 2930. No. 1220.

Number	1190	1200	1210	1220
Size.....inches	¼ to 4½	¼ to 4½	¼ to 2½	¼ to 2½
Price.....per pound	.42	.42	.42	.42

SQUARE FLATTER. ROUND FLATTER. SET HAMMER. HARDIE.

FIG. 2931. No. 1230. FIG. 2932. No. 1240. FIG. 2933. No. 1250. FIG. 2934. No. 1310.

Number	1230	1240	1250	1310
Size.....inches	1 to 4½	1 to 4½	1 to 2½	½ to 1¼
Price.....per pound	.42	.42	.42	.42

SQUARE PUNCH. ROUND PUNCH. BACKING OUT PUNCH. SIDE CHISEL.

FIG. 2935. No. 1260. FIG. 2936. No. 1270. FIG. 2937. No. 1321. FIG. 2938. No. 1320.

Number	1260	1270	1321	1320
Size.....inches	⅜ to 1	⅜ to 1	Weight About 2¾ lbs	Weight About 4¼ lbs
Price.....per pound	.42	.42	.80	.80

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THE W. M. PATTISON SUPPLY CO. 1055 CLEVELAND

BLACKSMITHS' TOOLS.

COLD CHISEL.

FIG. 2939.
No. 1290.

HOT CHISEL.

FIG. 2940.
No. 1300.

HEADING TOOL.

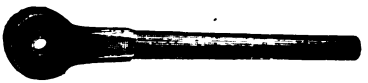

FIG. 2941.
No. 1280.

Number	1290	1300	1280
Size.....inches	1¼, 1⅜ and 1½	1¼, 1⅜ and 1½	¼ to 1
Price.....per pound	.42	.42	.42

Sledges.

CROSS PEIN.

FIG. 2942.
No. 830.

STRAIGHT PEIN.

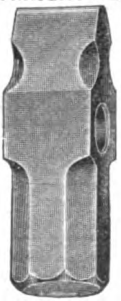

FIG. 2943.
No. 840.

DOUBLE FACE.

FIG. 2944.
No. 850.

HORSE SHOERS' TURNING.

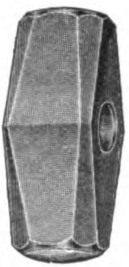

FIG. 2945.
No. 870.

Number	830		840		850	870
Weight.....pounds	5 and over	3 to 5	5 and over	3 to 5	5 and over	6 to 10
Price.....per pound	.30	.40	.30	.40	.30	.30

FIG. 2946. **No. 1060.**

Button or Rivet Sets.

Number	1060	
Weight.....pounds	3 to 5	5 and over
Price.....per pound	.75	.70

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BLACKSMITHS' TOOLS.

DRIFT PIN.

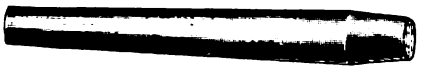

FIG. 2947.

HAND PUNCH.

FIG. 2948.

Drift Pins.

Size	inches	$\frac{5}{8}$ to 1
Price	each	.80

Hand Punches.

Size of Steel	inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1
Length	inches	6	$6\frac{1}{2}$	$7\frac{1}{2}$	$8\frac{1}{4}$	$8\frac{3}{4}$	$9\frac{1}{4}$
Point	inches	$\frac{1}{32}$	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$
Price	per dozen	.85	1.55	2.65	3.80	5.70	8.00

FARRIERS' PINCERS.

FIG. 2949.

FARRIERS' KNIVES.

FIG. 2950.

Farriers' Pincers, Knives, &c.

Price, Farriers' Pincers, 14 inches long	per dozen	12.00
Price, Farriers' Hoof Parers, 14 inches long	per dozen	28.00
Price, Farriers' Knives	per dozen	6.00
Price, Farriers' Buttresses	per dozen	15.00
Price, Farriers' Sole Knives	per dozen	6.00

BLACKSMITHS' SHEEP SKIN APRONS.

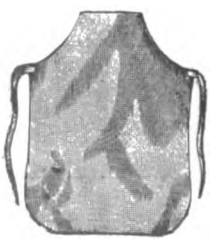

FIG. 2951.

Number		1	2	3	4
Size	inches	24x30	26x34	28x38	30x42
Price	per dozen	20.00	23.00	26.00	30.00

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THE W. M. PATTISON SUPPLY CO. 1057 CLEVELAND

BLACKSMITHS' TOOLS.

Drop Forged Steel Blacksmiths' Tongs.

COMMON TONGS.

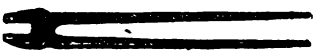

FIG. 2952.

V TONGS.

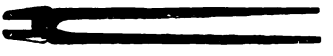

FIG. 2953.

Common Tongs.

Size.....inches	0, ¼ and ⅜		⅜			½			⅝ and ¾		
Length.....inches	14	18	16	20	24	18	20	24	18	24	28
Price.....per dozen	7.50	8.00	8.50	9.50	10.00	9.00	9.50	10.00	9.50	11.00	13.00

Size.....inches	⅞ and 1			1⅛ and 1¼		1⅜ and 1½	
Length.....inches	20	24	30	24	30	24	30
Price.....per dozen	12.00	13.00	15.00	15.00	17.00	16.00	18.00

V Tongs.

Size.....inches	¼, 5/16 and ⅜		7/16 and ½		⅝		¾		⅞	
Length.....inches	16	20	18	24	20	24	20	24	20	24
Price.....each	.75	.85	.85	.95	.95	1.05	1.05	1.15	1.15	1.25

Size.....inches	1		1⅛		1¼		1⅜		1½	
Length.....inches	20	24	24	30	24	30	24	30	24	30
Price.....each	1.25	1.35	1.50	1.65	1.65	1.80	1.80	1.95	1.95	2.10

LATHE TOOL TONGS.

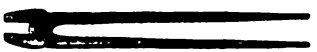

FIG. 2954.

BOLT HEADING AND HEATING TONGS.

FIG. 2955.

Lathe Tool Tongs.

Size.....inches	¼ x ⅜	1 x ½	1¼ x ⅝	1½ x ¾
Length.....inches	18	20	22	22
Price.....each	1.00	1.25	1.50	1.75

Bolt Heading and Heating Tongs.

Size.....inches	¼, 5/16, ⅜, 7/16, ½			
Price, Handles 14 inches, Jaws 4 inches.....each	.75	Price, Handles 20 inches, Jaws 4 inches.....each	.90	

PICK UP TONGS.

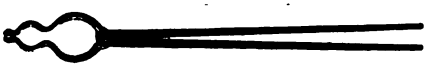

FIG. 2956.

HORSE SHOE TONGS.

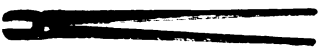

FIG. 2957.

Pick Up Tongs.

Number.....	1	2
Price.....each	1.00	1.25

Horse Shoe Tongs; Light or Heavy.

Price, 12, 14, 16, 18 inches.....per dozen	6.00

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THE W. M. PATTISON SUPPLY CO. 1058 CLEVELAND

Blacksmiths' Tongs.

STRAIGHT LIP TONGS.

FIG. 2958.

CURVED LIP, FLUTED JAW TONGS.

FIG. 2959.

Straight Lip Tongs.

Length.....inches	14	16	18	20	22	24	26	28	30
Weight.....per dozen pounds	27	29	31	34	36	39	42	45	49
Price.....per dozen	5.20	5.60	6.00	6.80	7.60	8.40	9.20	10.00	10.80

Curved Lip, Fluted Jaw Tongs.

Length.....inches	14	16	18	20	22	24	26	28	30
Price.....per dozen	7.50	8.50	9.50	10.50	12.00	13.50	15.00	17.00	19.00

Double and Single Pick Up and Rivet Tongs.

Price, Double Pick Up Tongs.....per pound	.40
Price, Single Pick Up Tongs.....per pound	.40
Price, Rivet Tongs.....per pound	.60

Weights of Curved Lip Fluted Jaw and Double and Single Pick Up and Rivet Tongs same as Straight Lip Tongs.

SWAGE BLOCKS.

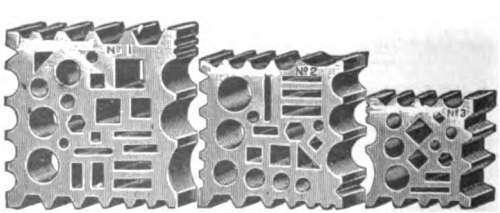

FIG. 2960.

Number.....	1	2	3	4	5	6	7
Size.....inches	12½x12¾x1	13½x13½x1	15x15x1	16x16x1	18x18x1½	19½x19½x1½	24x24x1
Price.....each	6.00	7.50	9.00	12.00	15.00	18.00	36.00

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THE W. M. PATTISON SUPPLY CO. 1059 CLEVELAND

BLACKSMITH MANDRELS AND TUYERE IRONS.

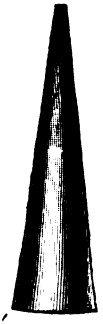

FIG. 2961.

Blacksmiths' Mandrels.
12 Inch Base; 4 Feet Long.

Price	each	8.00

DUCK NEST TUYERE IRONS.

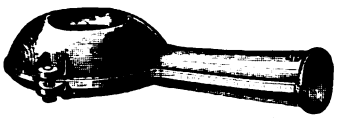

FIG. 2962.
No. 0.

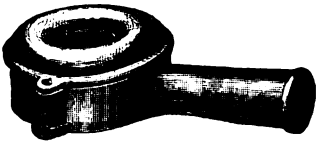

FIG. 2963.
No. 1.

Number		0	1
Price	each	1.50	2.00

WATER.

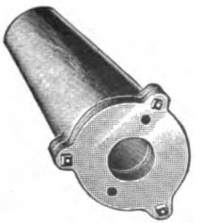

FIG. 2964.

GOOSE NEST.

FIG. 2965.

Goose Nest and Water Tuyere Irons.

Number		40	45	.....
Length	inches	16	22	.....
Size of Nozzle	inches	1	1¼	.....
Price, Water Tuyere Irons	each	4.50	6.00	.....
Price, Goose Nest Tuyere Irons	each	.....	.....	3.75

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1060

BELLOWS AND ANVILS.

HAND BELLOWS.

FIG. 2966.

MOULDERS' BELLOWS.

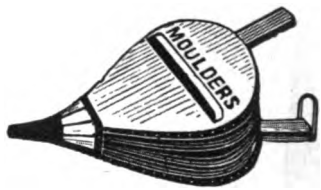

FIG. 2967.

Hand and Moulders Bellows.

Size.....inches	6	7	8	9	10	12	14	36
Price, Hand...per dozen	8.00	9.00	10.00	.....	12.00	.....	.....	.....
Price, Moulders', per dozen	.....	.....	.....	17.00	20.00	27.00	33.00	40.00

BLACKSMITHS' BELLOWS.

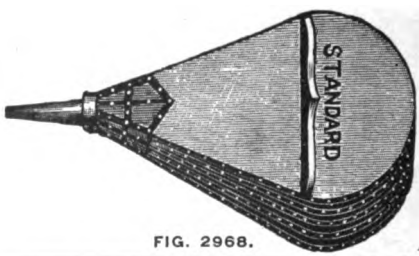

FIG. 2968.

Size.....inches	24	26	28	30	32	34	36
Price, Standard.....each	10.00	11.00	12.00	13.00	14.00	16.00	18.00
Price, Extra Long.....each	12.00	13.00	14.00	15.00	17.00	19.00	21.00
Size.....inches	38	40	42	44	46	48	50
Price, Standard.....each	20.00	23.00	27.00	32.00	.....	.....	.....
Price, Extra Long.....each	24.00	28.00	34.00	40.00	45.00	50.00	60.00

Extra Long 38 to 50 inches, with 2 inch Pipe connection, same list as Extra Long.

ANVILS.

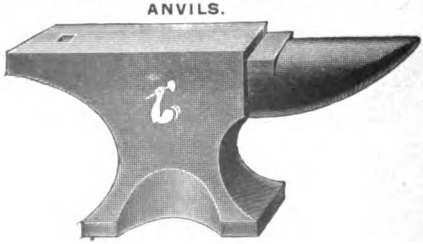

FIG. 2969.

Face.....inches	3½ x 12	3½ x 13½	3¾ x 15	4 x 15½	4 x 16	4½ x 16½
Weight.....pounds	80 to 90	100 to 110	125 to 135	140 to 145	150 to 160	170 to 180

Face.....inches	4½ x 17	4½ x 18	5 x 20	5½ x 22	6 x 24	.....
Weight.....pounds	190 to 200	250	300	350	400	.....

Advances on Anvils Under 80 Pounds; 80 to 400 Pounds Base.

Weight.....pounds	70 to 79	60 to 69	50 to 59	40 to 49	30 to 39	20 to 29	10 to 19	Clip Horn
Price, Extra...per pound	½	.01	.02	.03	.05	.08	.15	.01

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THE W. M. PATTISON SUPPLY CO. 1061 CLEVELAND

SCREW AND LEVER PUNCHES.

SCREW PUNCH.

FIG. 2970.

HYDRAULIC SCREW PUNCH.

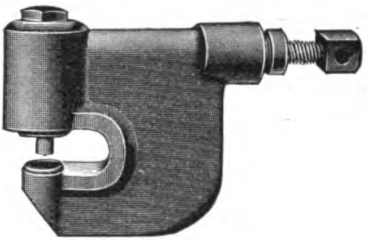

FIG. 2971.

Screw Punches.

Number	A	B	C	D	E	F	G
Hole will Punch.....inches	5/16	1/2	1/2	3/4	3/4	3/4	3/4
Thickness of Iron.....inches	1/4	1/4	5/16	1/2	3/4	3/4	3/4
Distance from Edge.....inches	1 1/2	1 1/2	1 1/2	2	2 1/2	3 1/2	4
Weight.....pounds	15	17	27	40	60	90	110
Price.....each	20.00	24.00	30.00	40.00	60.00	75.00	80.00

Hydraulic Screw Punches.

Number	1	2	3	4
Hole will Punch.....inches	11/16	13/16	15/16	15/16
Thickness of Iron.....inches	3/8	1/2	3/4	1
Depth of Jaw.....inches	2	2 5/8	3 1/8	4
Weight..... pounds	32	60	90	140
Price.....each	64.00	90.00	110.00	140.00

LEVER PUNCHES.

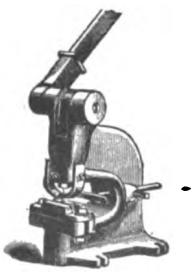

FIG. 2972.
No. 12.

Number	11	12	13	14
Throat.....inches	4	6	10	15
Weight.....pounds	105	115	150	240
Price.....each	12.50	15.00	20.00	25.00

Three Punches and Dies, 1/8, 3/16 and 1/4 inch included in above price.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND O.

LEVER PUNCHES AND SHEARS.

LEVER PUNCH, WITH RATCHET

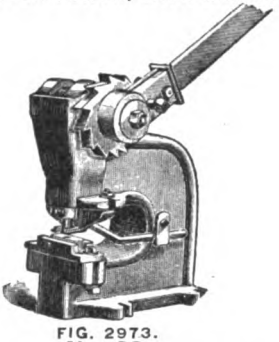

FIG. 2973.
No. 22.

LEVER SHEARS.

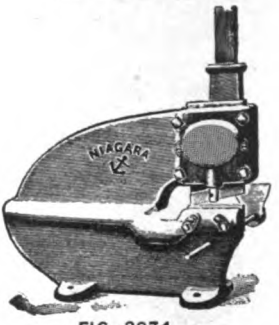

FIG. 2974.
Nos. 13 and 14.

Lever Punches, with Ratchet.

Number	21	22	23	24
Throat ..... inches	4	6	10	15
Weight ..... pounds	150	210	375	550
Price ..... each	20.00	24.00	32.00	40.00

Lever Shears.

Number	13	14	15
Plate Iron Will Cut ..... inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$
Length of Knives ..... inches	$4\frac{1}{2}$	5	6
Weight ..... pounds	200	400	800
Price ..... each	25.00	40.00	90.00

Number 15 can be operated with Lever direct, Ratchet and Pawl or Compound Lever. Iron Legs for Numbers 13 and 14, 5.00; for Number 15, 10.00.

COMBINED SHEARS AND PUNCH.

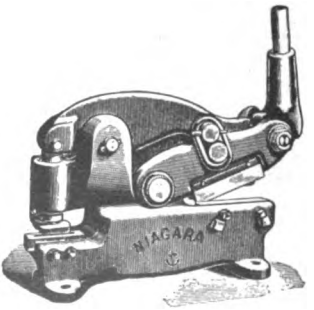

FIG. 2975.

Number	1	2	3
Hole Will Punch ..... inches	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$
Iron Will Cut ..... inches	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$
Size of Punches ..... inches	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{3}{8}$
Thickness of Iron will punch ... inches	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$
Cutting Length ..... inches	4	5	$8\frac{1}{2}$
Throat ..... inches	$2\frac{3}{4}$	$3\frac{1}{2}$	5
Weight ..... pounds	100	115	235
Price ..... each	16.00	20.00	32.00

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THE W. M. PATTISON SUPPLY CO. 1063 CLEVELAND

IRON SHEARS.

PLATE AND ROD SHEARS.

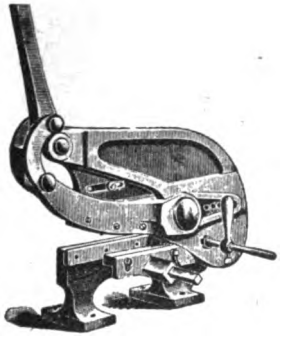

FIG. 2976.

ROUND AND SQUARE IRON SHEARS.

FIG. 2977.

Plate and Rod Shears.

Number	1	2	3
Will Cut Plate Iron up to ..... inches	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$
Will Cut Flat Iron up to ..... inches	$\frac{1}{4}$ x 3	$\frac{5}{16}$ x 3	$\frac{3}{8}$ x 3
Will Cut Round Iron ..... inches	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{7}{8}$
Length of Knives ..... inches	10	10	10
Weight ..... pounds	160	210	315
Price ..... each	32.00	38.00	45.00

Iron Legs, extra, 5.00.

Round Iron Shears.

Number	0	1	2	3	4	5	6	7	8
Capacity ...inches	$\frac{1}{4}$ and Smaller	$\frac{5}{16}$, $\frac{1}{4}$, $\frac{3}{16}$	$\frac{3}{8}$, $\frac{5}{16}$, $\frac{1}{4}$	$\frac{1}{2}$, $\frac{3}{8}$, $\frac{5}{16}$	$\frac{5}{8}$, $\frac{1}{2}$, $\frac{3}{8}$	$\frac{3}{4}$, $\frac{5}{8}$, $\frac{1}{2}$	$\frac{7}{8}$, $\frac{3}{4}$, $\frac{5}{8}$, $\frac{1}{2}$	1, $\frac{7}{8}$, $\frac{3}{4}$, $\frac{5}{8}$, $\frac{1}{2}$	$1\frac{1}{8}$, 1, $\frac{7}{8}$, $\frac{3}{4}$, $\frac{5}{8}$, $\frac{1}{2}$
Weight....pounds	4	15	21	26	42	94	135	225	284
Price ..... each	6.00	10.00	14.00	18.00	23.00	35.00	48.00	60.00	80.00

Square Iron Shears.

Number	1	2	3	4	5	6	7	8
Capacity ..... inches	$\frac{1}{4}$ and Smaller	$\frac{5}{16}$, $\frac{1}{4}$	$\frac{3}{8}$, $\frac{5}{16}$, $\frac{1}{4}$	$\frac{1}{2}$, $\frac{3}{8}$, $\frac{5}{16}$	$\frac{5}{8}$, $\frac{1}{2}$, $\frac{3}{8}$	$\frac{3}{4}$, $\frac{5}{8}$, $\frac{1}{2}$	$\frac{7}{8}$, $\frac{3}{4}$, $\frac{5}{8}$, $\frac{1}{2}$	1, $\frac{7}{8}$, $\frac{3}{4}$, $\frac{5}{8}$, $\frac{1}{2}$
Weight.....pounds	15	21	26	42	94	135	225	284
Price ..... each	11.00	15.00	20.00	25.00	38.00	52.00	65.00	85.00

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THE W. M. PATTISON SUPPLY CO. 1064 CLEVELAND

TRACK TOOLS, ETC.

TRACK MAUL.

STRIKING OR DRILLING HAMMER. TRACK CHISEL. TRACK PUNCH.

FIG. 2978. No. 920.

FIG. 2979. No. 750.

FIG. 2980. No. 1170.

FIG. 2981. No. 1180.

Number	920	750			1170	1180
Weight.....pounds	5 to 12	5 and Over	3 to 5	Under 3	About 4¾	About 4¾
Price.....per pound	.30	.40	.50	.55	.40	.40

STONE SLEDGE. NAPPING HAMMER. MASONS' HAMMER. MASONS' HAMMER. DOUBLE FACE.

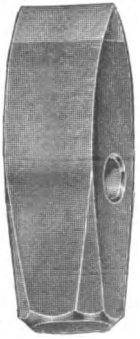

FIG. 2982. No. 730.

FIG. 2983. No. 890.

FIG. 2984. No. 670.

FIG. 2985. No. 680.

Number	730	890			670 and 680		
Weight..... pounds	5 to 30	5 and Over	3 to 5	Under 3	5 and Over	3 to 5	Under 3
Price.....per pound	.30	.30	.40	.50	.50	.55	.60

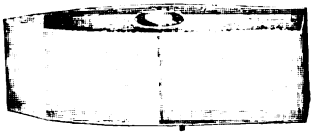

FIG. 2986. No. 710.

Spauling or Stone Hammers. Single and Double Face.

Numbers	710 Single, 720 Double.		
Weight.....pounds	5 and Over	3 to 5	Under 3
	.40	.50	.55

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THE W. M. PATTISON SUPPLY CO. 1065 CLEVELAND

CROW BARS, WEDGE OR PINCH POINT.

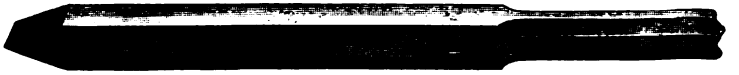

FIG. 2987. No. 1160.

LINING BAR.

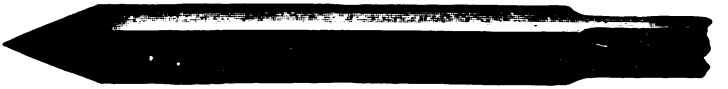

FIG. 2988. No. 1150.

CLAW BAR, WITH HEEL.

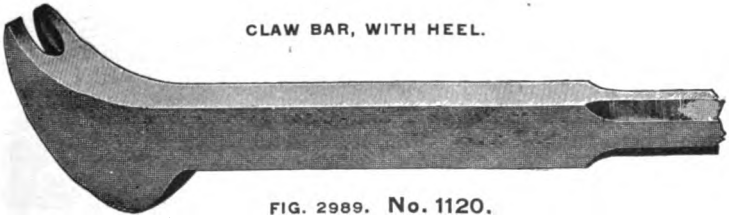

FIG. 2989. No. 1120.

GOOSE NECK CLAW BAR.

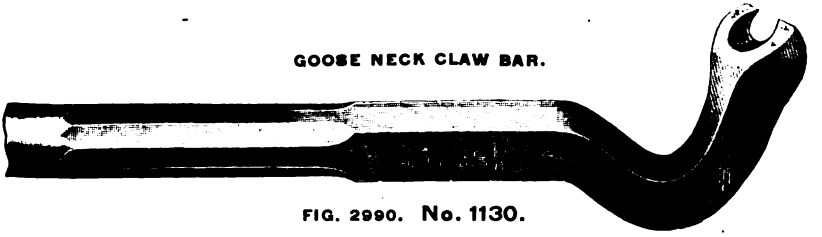

FIG. 2990. No. 1130.

TAMPING BAR.

FIG. 2991. No. 1140.

TELEGRAPH DIGGING BAR.

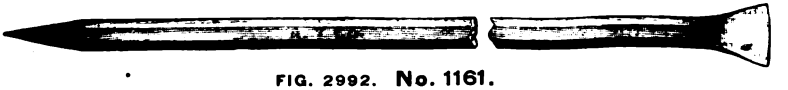

FIG. 2992. No. 1161.

Number.....	1160	1150	1120	1130	1140	Cast Steel 1161	Tool Steel
Weight.....pounds	10to40	18to25	About 28	About 25	About 14	26	26
Price.....per pound	.12	.12	.22	.22	.16	.35	.50

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THE W. M. PATTISON SUPPLY CO. 1066 CLEVELAND

SHACKLE BAR.

FIG. 2993.

Price, Shackle Bars 1½ inches in the square, 5 feet long.....each | 6.00

CAR STARTER.

FIG. 2994.

Price, Car Starters, weight about 28 pounds.....per pound | .22

SAMSON CAR STARTER.

FIG. 2995.

ZELNICKER CAR STARTER.

FIG. 2996.

Price, Samson Car Starters..each | 5.00 || Price, Zelnicker Car Starter.....each | 5.00

HUNTINGTON TRACK GAUGE.

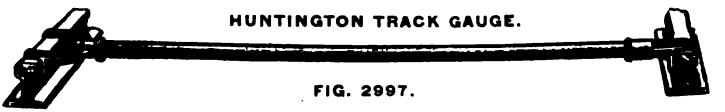

FIG. 2997.

Price, Huntington Standard Track Gauge, 4 foot, 8½ inches.....each | 3.00

COMBINED TRACK GAUGE AND LEVEL, WITH SQUARING ATTACHMENT.

FIG. 2998.

Price, Standard Combined Track Gauge and Level 4 foot, 8½ inches..each | 4.00

TRACK LEVEL.

FIG. 2999.

Price, Track Level.....each | 3.50

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THE W. M. PATTISON SUPPLY CO. 1087 CLEVELAND

TRACK TOOLS, ETC.

TRACK TONGS.

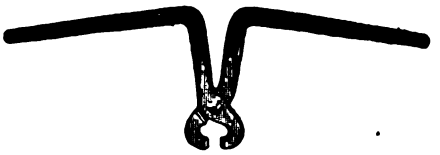

FIG. 3000.

Price, Track Tongs, weight about 17 pounds	per pound	.30

RAIL FORK.

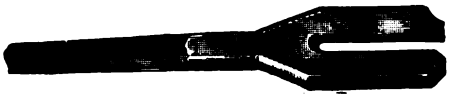

FIG. 3001.

Price, Rail Forks, weight about 7½ pounds	per pound	.25

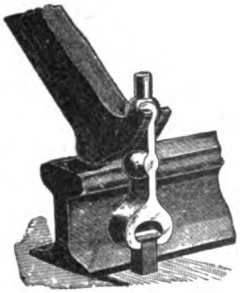

FIG. 3002.

Spike Puller.

Price	per pound	.50

TRACK DRILL.

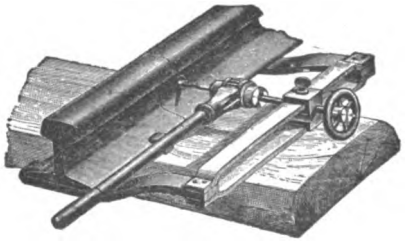

FIG. 3003

Price, Complete, weight 27 pounds	each	10.00

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TRACK TOOLS, ETC.

AUTOMATIC FEED TRACK DRILL.

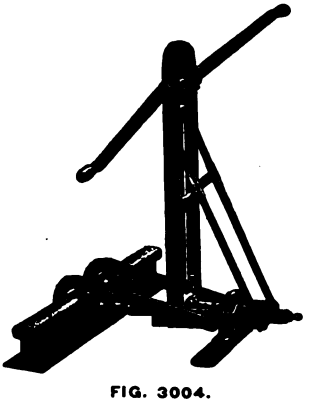

FIG. 3004.

RAIL SAW.

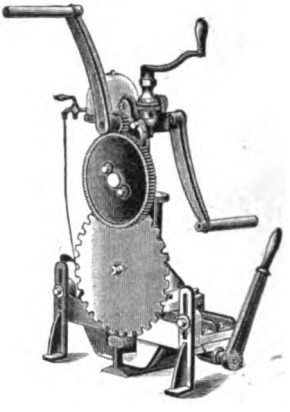

FIG. 3005.

Automatic Feed Track Drills.

Number	1	2	3
Weight.....pounds	60	90	100
Price.....each	22.00	22.00	27.00

No. 3 is for Girder Rail Pattern.

Rail Saws.

Number	5	5A	6	6A
Weight.....pounds	250	300	320	400
Capacity.....inches	6	6	8	8
Price.....each	110.00	135.00	135.00	165.00

Nos. 5 and 6 are for Straight Cuts; 5A and 6A both Straight and Angle.

JIM CROW RAIL BENDER.

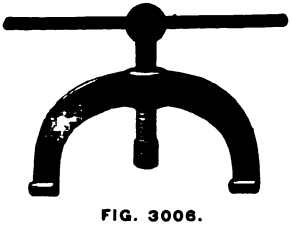

FIG. 3006.

Number	0	1	2	3	3½	4
For Rails up to.....pounds per yard	20	25	50	68	78	95
Weight, with Lever.....pounds	45	67	98	145	160	200
Span to center of claws..... inches	16	19	22	27	28	28
Diameter of Screw .....inches	1¼	2	2¼	2½	2⅝	2¾
Price.....each	18.00	22.00	30.00	36.00	45.00	54.00

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THE W. M. PATTISON SUPPLY CO. 1069 CLEVELAND

RAIL BENDING AND STRAIGHTENING MACHINE.

FIG. 3007.

ROLLER RAIL BENDER AND STRAIGHTENER.

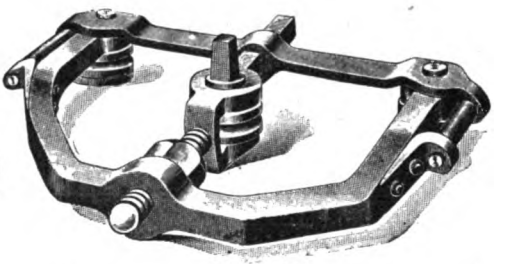

FIG. 3008.

Rail Bending and Straightening Machines.

Number	1	2	3	4
For Rails ..... pounds	Up to 45	45 to 65	65 to 90	90 to 115
Weight with lever ..... pounds	100	250	350	400
Price ..... each	100.00	118.00	143.00	175.00

Roller Rail Benders and Straighteners.

Number	1	2	3	4	5	6
For Rails...pounds	20 to 40	41 to 60	61 to 70	71 to 80	81 to 90	91 to 100
Weight .....pounds	300	360	400	470	520	830
Price.....each	105.00	115.00	140.00	180.00	230.00	400.00

REPLACING FROGS.

AAA TO B INCLUSIVE ARE FOR STEAM RAILWAYS. C TO G INCLUSIVE FOR ELECTRIC STREET RAILWAYS

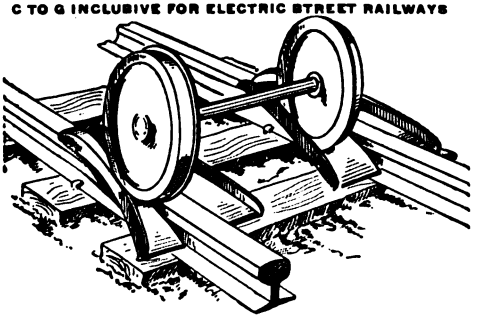

FIG. 3009.

Number	A A A Jumbo	A A Little Giant	A Standard	B Caboose	C Electric	D Low Truck	E Elevated Road	F Surface	G Girder Rail
Size.....inches	34x38	34x32	25x27	25x27	25x27	24x48	30X13½	18x18	35x27
Will Carry ..Tons	Any	Any	Any	50	25	25	25	25	35
Weight....pounds	375	275	150	110	75	125	80	45	180
Price....Complete	50.00	40.00	22.00	17.50	15.00	25.00	16.00	10.00	24.00

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THE W. M. PATTISON SUPPLY CO. 1070 CLEVELAND

MAULS AND WEDGES.

CAST IRON POST.

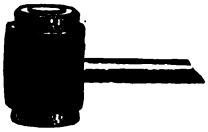

FIG. 3010.

SEWER BUILDERS.

FIG. 3011.

Wood Face Mauls, Hickory Handle.

Weight.....pounds	8	9	10	12	14
Price.....per dozen	5.25	5.50	5.75	6.50	7.50

Solid Iron Mauls, Hickory Handle.

Weight.....pounds	14	16	18	20	22
Price.....per dozen	6.00	6.75	7.50	8.25	9.00

Sewer Builders' Mauls, with Iron Bands.

	Light.	Medium.	Heavy.
Size.....inches	6 x 12	6½ x 13	7 x 14
Price.....each	1.50	1.75	2.00

COAL MAUL.

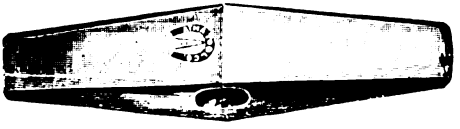

FIG. 3012.
No. 800.

SHIP OR TOP MAUL.

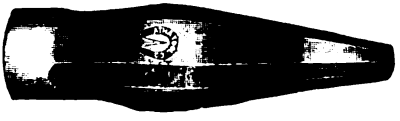

FIG. 3013.
No. 930.

Number	800		930
Weight.....pounds	5 and Over	3 to 5	3 to 7
Price.....per pound	.30	.36	.42

WOOD CHOPPERS WEDGE.

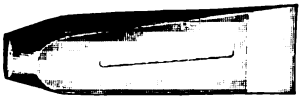

FIG. 3014.
No. 980.

COAL WEDGE.

FIG. 3015.
No. 1030.

Number	980	1030
Weight.....pounds	3 to 10	1½ to 5
Price.....per pound	.25	.20

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CEMENT WORKING TOOLS.

THE W. M. PATTISON SUPPLY CO. 1071 CLEVELAND

Jointers.

JOINTER A: ADJUSTABLE FROM 3/8 TO 1 3/8 INCHES IN DEPTH.

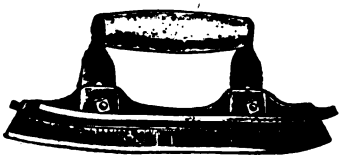

FIG. 3016.

JOINTER B: ADJUSTABLE FROM 3/8 TO 1 INCH IN DEPTH.

FIG. 3017.

JOINTER C: BLADE 5/8 INCHES DEEP, KNIFE THICKER THAN A AND B.

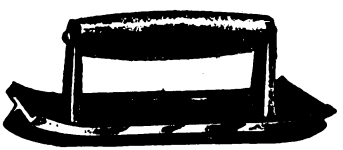

FIG. 3018.

JOINTER D: BLADE 1/2 INCH DEEP, KNIFE THINNER THAN C.

FIG. 3019.

JOINTER E: BLADE 3/8 INCH DEEP, KNIFE SAME THICKNESS AS D.

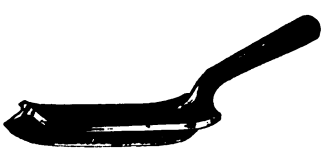

FIG. 3020.

JOINTER F: BLADE 1/2 INCH DEEP KNIFE SAME THICKNESS AS C.

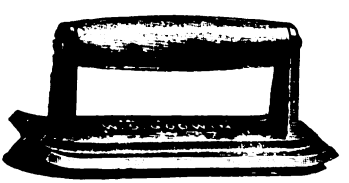

FIG. 3021.

Number	A	B	C	D	E	F
Price, Steel.....each	2.50	1.80	1.50	1.20	.50	1.80
Price, Brass.....each	3.10	2.10	1.90	1.40	.60	2.20

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THE W. M. PATTISON SUPPLY CO. 1072 CLEVELAND

CEMENT WORKING TOOLS.

DRIVEWAY GROOVER A: BLADE ⅝ INCHES DEEP.

FIG. 3022.

DRIVEWAY GROOVER B: BLADE ⅝ INCHES DEEP.

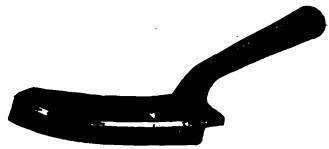

FIG. 3023.

DRIVEWAY GROOVER C: ADJUSTABLE FROM ⅞ TO 1½ INCHES IN DEPTH.

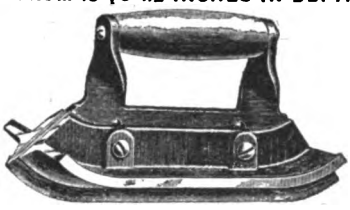

FIG. 3024.

CURB TOOL.

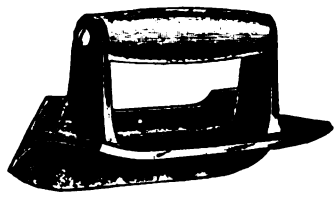

FIG. 3025.

RESIDENCE CURB TOOL.

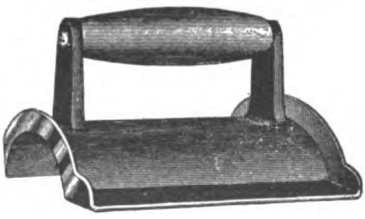

FIG. 3026.

BEVEL TOOL.

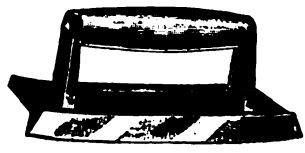

FIG. 3027.

Driveway Grooves. **Curb Tools.**

Number	A	B	C				
Radius.....inches				⅜	½	1	2
Price, Steel.....each	1.30	.60	4.00	1.40	1.40	1.40	1.80
Price, Brass.....each	1.90	1.00	4.60	1.70	1.70	1.80	2.90

Residence Curb Tools. **Bevel Tools.**

Height of Roll.....inches	1¼	2¼	
Price, Steel.....each	2.10	3.10	1.40
Price, Brass.....each	3.10	3.70	1.80

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THE W. M. PATTISON SUPPLY CO. 1073 CLEVELAND

GUTTER TOOL.

FIG. 3026.

Gutter Tools.

RADIUS TOOL.

FIG. 3029.

Radius Tools.

Size, depth and width .....inches	1 x 4½	1½ x 6	.....
Price, Steel.....each	2.20	2.60	.....70.....
Price, Brass.....each	3.10	3.70	.....1.00.....

ANGLE TROWEL.

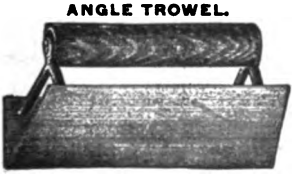

FIG. 3030.

Angle Trowels.

FLOAT.

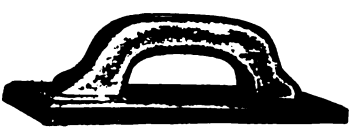

FIG. 3031.

Floats.

Price.....each	1.50	Price, Oak.....each	.40

CONCRETE CUTTERS,
5½ X 18 INCHES.

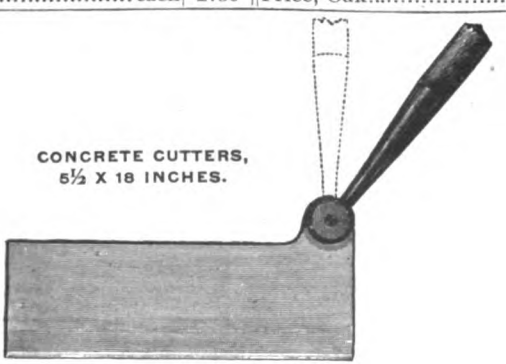

FIG. 3032.

Price, Steel.....each	5.00

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THE W. M. PATTISON SUPPLY CO. 1074 CLEVELAND

CEMENT WORKING TOOLS, ETC.

INDENTATION ROLLER.

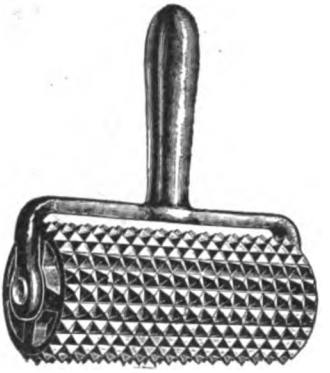

FIG. 3033.
Nos. 1 and 2.

LINE ROLLER.

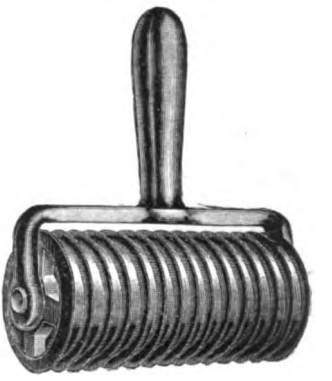

FIG. 3034.
Nos. 3 to 6.

Number	1	2	3	4	5	6	*7	*8
Length.....inches	7½	12	7½	7½	12	12	7½	12
Distance of Lines Apart..inches	.....	.....	1⅜	½	1⅜	½	.....	.....
Price.....each	13.50	17.50	13.50	13.50	17.50	17.50	13.50	17.50

* Numbers 7 and 8 are Ribbon Rollers; each ribbon is an inch wide and is separated from the other by an inch of plain surface.

BELGIAN HAMMER.

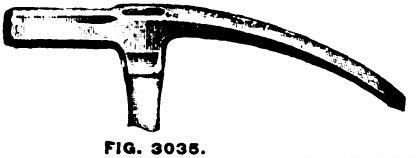

FIG. 3035.

COBBLE HAMMER.

FIG. 3036.

MACADAMIZING HAMMER.

FIG. 3037.
Belgian, Cobble and Macadamizing Hammers.

Price, Belgian and Cobble Hammers.....each	4.50
Price, Macadamizing Hammers, 1 to 2 pounds.....per pound	.75

Bricklayers Hammers; not Illustrated.

Size	1	2	3	4
Weight	1 lb 2 oz	1 lb 8 oz	2 lb	2 lb 8 oz
Price.....per dozen	11.00	12.00	13.00	14.00
Price, Adze Eye.....per dozen	13.00	14.00	15.00	16.00

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THE W. M. PATTISON SUPPLY CO. 1075 CLEVELAND

TAMPERS ETC.

FIG. 3038.
No. 1.

FIG. 3039.
Nos. 1½, 2 and 3.

FIG. 3040.
Nos. 3½ to 7.

Number	1	1½	2	3	3½	4	5	6	7
Weight.....pounds	14	15	20	30	12	17	20	26	17
Price.....each	.85	.90	1.20	1.80	.75	1.05	1.20	1.55	1.05

Wood Handles are furnished unless otherwise ordered; Iron Pipe Handles are furnished when desired at a small advance in price; with Pipe Handles each Tamper weighs four pounds more. No. 1 is for setting posts. Nos. 1½, 2 and 3 for tamping sod.

PAVING POUNDERS, FURNISHED WITH ROUND OR SQUARE BODIES.

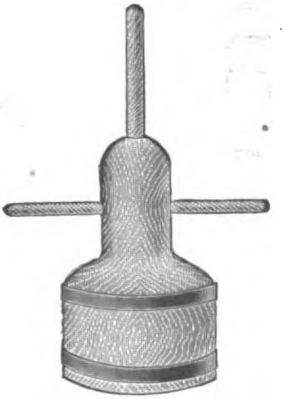

FIG. 3041.

Price.....each	8.00

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THE W. W. PATTISON SUPPLY CO. 1076 CLEVELAND

LADLES, POTS AND JOINT RUNNERS.

LADLE.

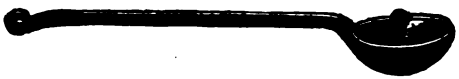

FIG. 3042.

SOLDER POT.

FIGI 3043.

Ladles.

Size.....inches	2½	3	3½	4	5	6
Price.....each	.35	.40	.50	.60	.70	.90

Solder Pots.

Size.....inches	5	6	8	9	10½	13½
Price.....each	.50	.65	1.10	1.30	1.75	3.50

POURING LADLE.

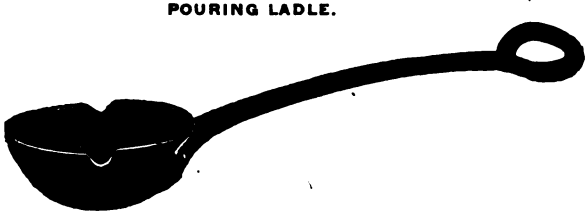

FIG. 3044.

POURING POT.

FIG. 3045.

Pouring Ladles and Pots.

Size.....inches	8	10	12
Price, Pouring Ladles.....each	5.00	6.50	7.50
Price, Pouring Pot.....each	.....	.....	3.50

Asbestos Joint Runners.

ROUND

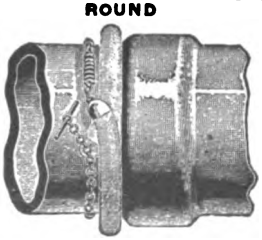

FIG. 3046.

SQUARE.

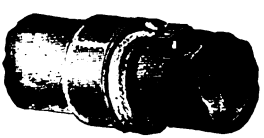

FIG. 3047.

Number	1	2	3	4	5	6	7
Size.....inches	¾	¾	1	1	1¼	1¼	1¼
For Pipe.....inches	2, 3, 4	4, 5, 6	6, 8, 10	10, 12, 14	6, 8, 10	10, 12, 14	16, 18, 20
Price, round.....each	1.00	1.25	1.65	2.00	.....	.....	.....
Price, square.....each	1.40	1.65	2.50	3.30	4.40	5.50	7.50

Number	8	9	10	11	12	13	.....
Size.....inches	1½	1½	1½	1½	1½	1½	.....
For Pipe.....inches	24	30	36	40	42	48	.....
Price, square.....each	8.50	9.60	10.75	11.80	13.40	13.75	.....

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THE W. M. PATTISON SUPPLY CO. 1077 CLEVELAND

LEAD AND TAR MELTING FURNACES.

Lead Melting Furnaces.

ON LEGS.

FIG. 3048.

ON WHEELS.

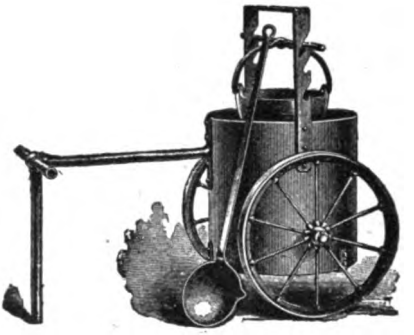

FIG. 3049.

Diameter of Furnace.....inches	18	24	30
Diameter of Ladles.....inches	8	9	10
Diameter of Pots.....inches	14	17	20
Depth of Pots.....inches	7	8½	10
Price, on Legs.....each	33.00	38.50	45.00
Price on Wheels.....each	45.00	50.00	55.00
Price, Extra Ladles.....each	3.25	3.75	4.50
Price, Extra Pots.....each	5.00	6.00	7.75

TAR MELTING FURNACES.

FIG. 3050.

Number.....	204	205
Capacity.....gallons	100	150
Price, on Legs.....each	.....	.....
Price, on Wheels.....each	.....	.....

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THE W. M. PATTISON SUPPLY CO. 1078 CLEVELAND

GAS PROVING PUMPS, ETC.

WITH MERCURY GAUGE.

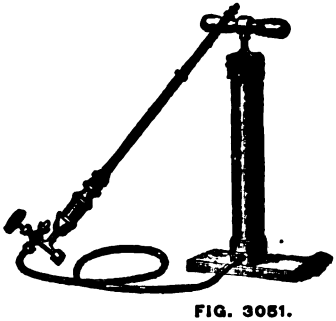

FIG. 3051.

WITH SPRING GAUGE.

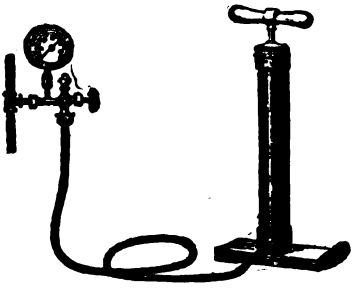

FIG. 3052.

Gas Proving Pumps.

Price, With Mercury Gauge Complete, Each.	Price, With Spring Gauge Complete, Each.	Price, Pump Only, Each.	Price, Mercury Gauge, With Cock and Ether Cup, Each.
25.00	30.00	13.00	10.00

GAS DRIP PUMP.

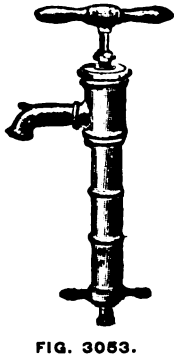

FIG. 3053.

PLUMBERS FORCE PUMP.

FIG. 3054.

GAS MAIN CLEARING PUMP.

FIG. 3055.

Gas Drip Pumps.

Number.	Cylinder, Inches.	Stroke, Inches.	Capacity, Per Stroke, Gallons.	Suction, Inches.	Price, Each.
0	2	9	.12	¾	12.00
2	2½	9	.19	¾	16.00

Plumbers Force and Gas Main Clearing Pumps.

Price, Plumbers Force Pump	each	12.00
Price, Gas Main Clearing Pump	each	30.00

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THE W. M. PATTISON SUPPLY CO. 1079 CLEVELAND

PIPE TAPPING MACHINES.

MUELLER.

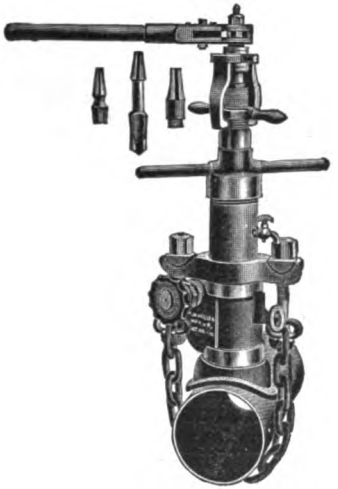

FIG. 3056.

COLUMBIA.

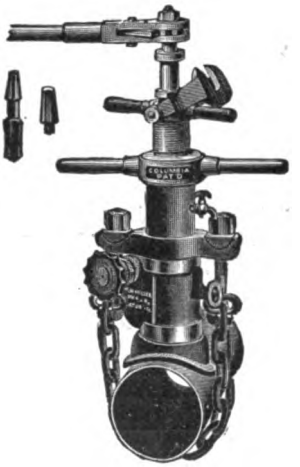

FIG. 3057.

Mueller and Columbia Pipe Tapping Machines.

Price	each	100.00

Price Includes.

One each combined Drill and Tap, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$ and 1 inch.
One each Screw or Hexagon Plug, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$ and 1 inch.
Four Malleable Iion Saddles, any size.
One Chain for any size Pipe.

Extra Combined Drills and Taps For Mueller and Columbia Machines.

Size ..... inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1
Price ..... each	3.75	4.00	4.50	5.50	6.50

Extra Plugs, Saddles and Gaskets.	For Mueller Machine.	For Columbia Machine.
Price, Hexagon or Screw Plugs, any size ... each	.60	.60
Price, Malleable Iron Saddles, any size .... each	1.00	1.15
Price, Small Rubber Gaskets ..... each	.25	.30
Price, Large Rubber Gaskets ..... each	1.25	1.35

Power Clevis for Mueller Machine 5.00 extra.
Power Clevis for Columbia Machine 5.35 extra.

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THE W. M. PATTISON SUPPLY CO. 1080 CLEVELAND

MUELLER DRY PIPE AND GAS TAPPING MACHINES.

OUR SPECIAL.

FIG. 3056.
No. 1.

STANDARD.

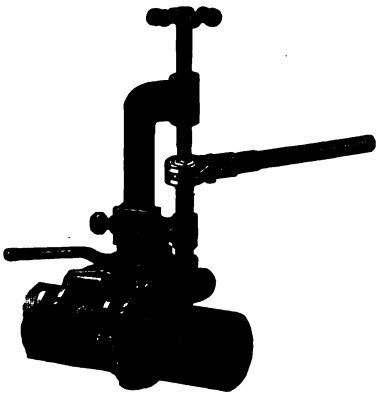

FIG. 3059.
No. 2.

Number	1	2
Price, Machine Only.....each	17.25	21.00

FOR HIGH OR LOW PRESSURE GAS MAINS.

FIG. 3060.
No. 3.

Price, No. 3.....each	31.00

Combined Drills and Taps for Dry Tapping Machines.

Size.....inches	¾	⅛	⅜	¾	1	1¼	1½	2	2½	3
Price, Iron Pipe Thread.....each	3.00	4.00	.....	4.50	5.00	6.25	7.50	9.50	12.00	15.00
Price, Corp Cock Thread...each	.....	4.00	4.25	4.50	5.00	.....	.....	.....	.....	.....

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PICKS.

THE W. M. PATTISON SUPPLY CO. CLEVELAND

RAILROAD OR CLAY, ADZE EYE.

FIG. 3061.

RAILROAD OR CLAY, HUNT EYE.

FIG. 3062.

Railroad or Clay Picks; Adze and Hunt Eye.

Weight.....pounds	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10
Price, Adze Eye.....per dozen	11.50	12.50	13.50	14.50	16.50	18.50
Price, Hunt Eye .....per dozen	11.50	12.50	13.50	14.50	.....	.....

ORE, ADZE EYE.

FIG. 3063.

CONTRACTORS; ADZE EYE.

FIG. 3064.

Ore Picks; Adze Eye.

Weight.....pounds	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10
Price, Adze Edge.....dozen	12.50	13.50	14.50	16.50	18.50

Contractors Picks; Adze Eye.

Weight..... pounds	7	7½	8	8½	9	9½	10
Price.....per dozen	18.00	18.50	19.00	20.00	21.00	22.00	23.00

TAMPING; ADZE EYE.

FIG. 3065.

TAMPING; HUNT EYE.

FIG. 3066.

Tamping Picks; Adze and Hunt Eye.

Weight.....pounds	6 to 7	7 to 8	8 to 9
Price, Adze or Hunt Eye.....per dozen	18.00	19.00	20.00

STONE.

FIG. 3067.

PICK EYE BLANKS.

FIG. 3068.

Stone and Quarry Picks.

Weight..... pounds	4	4½	5	5½	6	6½	7
Price.....per dozen	14.00	14.50	15.00	15.50	16.00	16.50	17.00
Weight.....pounds	7½	8	8½	9	9½	10	.....
Price..... per dozen	17.50	18.00	18.50	19.00	19.50	20.00	.....

Pick Eye Blanks.

Weight,.....pounds	3	4	4½	5	6	7	8	9	10
Price, Drifting....per dozen	7.50	8.50	9.00	10.50	.....	.....	.....	.....	.....
Price, R. R.. ..... per dozen	.....	.....	9.00	9.50	10.50	11.50	12.50	13.50	14.50

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PICKS AND MATTOCKS.

COAL PICK.

FIG. 3069.

DRIFTING PICK.

FIG. 3070.

Coal Picks; Regular, Medium, Slim, Cutting and Mining.

Weight.....pounds	1¼, 1¾, 2	2¼, 2½	2¾, 3	3¼, 3½	3¾, 4	4¼, 4½
Price.....per dozen	8.50	9.00	9.50	10.00	10.50	11.00

Weight.....pounds	4¾, 5	5½	6	6½	7	.....
Price.....per dozen	11.50	12.00	12.50	13.00	14.00	.....

Drifting Picks.

Weight.....pounds	3	4	4½	5	6
Price.....per dozen	12.50	14.00	15.00	16.00	17.50

SURFACE PICK.

FIG. 3071.

POLL PICK.

FIG. 3072.

Surface Picks.

Weight.....pounds	4	4½	5	5½	6	6½	7
Price.....per dozen	14.00	15.00	16.00	17.00	18.00	19.00	20.00

Poll Picks.

Weight.....pounds	3½	4	4½	5	6	6¾
Price.....per dozen	15.00	16.00	17.00	18.50	20.00	21.50

MATTOCK.

FIG. 3073.

PICK MATTOCK.

FIG. 3074.

Mattocks.

Weight.....pounds	3	4	5	5½	6
Price, Short Cutter.....per dozen	16.00	16.00	16.00	16.50	.....
Price, Long Cutter or Pick.....per dozen	.....	.....	16.00	.....	17.00

GRUB HOE.

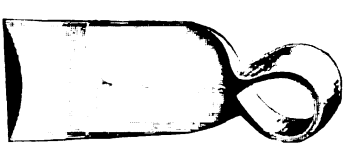

FIG. 3075.

BOILER PICK.

FIG. 3076.

Grub Hoes.

Weight.....pounds	3	3½	4	4½
Price.....per dozen	11.50	12.00	12.50	13.00

Boiler Picks.

Price, weight one pound.....each	.75

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1083

SHOVELS AND SPADES.

FIG. 3077.

FIG. 3078.

FIG. 3079.

FIG. 3080.

FIG. 3081.

St. Clair, Steel Socket Shovels.

Number.	Size.	Handle.	Point.	Finish.	Price, Per Dozen.
501	2.	D	Square	Polished	8.00
503	2	D	Round	Polished	8.00
505	2	Long	Square	Polished	8.00
507	2	Long	Round	Polished	8.00

Black Shovels, 50 cents per dozen less.

Buck, Iron Back Strap Steel Shovels.

Number.	Size.	Handle.	Point.	Finish.	Price, Per Dozen.
1	2	D	Square	Polished	9.00
2	2	D	Round	Polished	9.00
3	2	Long	Square	Polished	9.00
4	2	Long	Round	Polished	9.00

Ajax, Plain Back Steel Shovels.

1	2	D	Square	Polished	15.00
2	2	D	Round	Polished	15.00
3	2	Long	Square	Polished	15.00
4	2	Long	Round	Polished	15.00

Black Shovels, 50 cents per dozen less.

Hubbard, Plain Solid Back Steel Shovels.

1	2	D	Square	Polished	17.00
2	2	D	Round	Polished	17.00
3	2	Long	Square	Polished	17.00
4	2	Long	Round	Polished	17.00

Ajax, Steel Socket Shovels.

40	2	D	Square	Black	15.50	45	8	D	Square	Black	17.50
41	3	D	Square	Black	16.00	67	2	D	Round	Black	15.50
42	4	D	Square	Black	16.50	68	3	D	Round	Black	16.00
42½	4	D	Square	Black	16.50	46	2	D	Square	Polished	16.00
43	5	D	Square	Black	17.00	47	3	D	Square	Polished	16.50
44	6	D	Square	Black	17.50	70	2	D	Round	Polished	16.00

Ajax, Steel Socket Spades.

72	2	D	Square	Black	13.50	76	2	D	Square	Polished	14.00
73	3	D	Square	Black	14.00	77	3	D	Square	Polished	14.50
74	2	Long	Square	Black	13.50	78	2	Long	Square	Polished	14.00
75	3	Long	Square	Black	14.00	79	3	Long	Square	Polished	14.50

Buck, Steel Moulders Shovels.

Price, Size 2, Square Point, Polished.....per dozen | 9.00

For Dimensions, see page 1086.

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SHOVELS AND SPADES.

COAL SHOVEL. DITCHING SPADE. DRAINING SPADE.

FIG. 3062.

FIG. 3063.

FIG. 3064

Steel Coal Shovels.

ST. CLAIR.				VULCAN.				AJAX.			
Number.	Size.	Finish.	Price, Per Dozen.	Number.	Size.	Finish.	Price, Per Dozen.	Number.	Size.	Finish.	Price, Per Dozen.
521	1	Black	8.00	0171	1	Black	11.50	171	1	Black	14.00
522	2	Black	8.50	0172	2	Black	12.00	172	2	Black	14.50
523	3	Black	9.00	0173	3	Black	12.50	173	3	Black	15.00
524	1	Half Pol.	8.50	*0175	5	Black	13.50	*175	5	Black	16.00
525	2	Half Pol.	9.00	0181	1	Half Pol.	12.00	181	1	Half Pol.	14.50
526	3	Half Pol.	9.50	0182	2	Half Pol.	12.50	182	2	Half Pol.	15.00
.....	.....	.....	.....	0183	3	Half Pol.	13.00	183	3	Half Pol.	15.50
.....	.....	.....	.....	*0185	5	Half Pol.	14.00	*185	5	Half Pol.	16.50

* Coke Shovels.

Post, Ditching and Draining Spades; Plain Back, Polished.

Length.....inches	14	16	18	20	22
Price.....per dozen	19.00	19.50	20.00	20.50	21.00

Steel Drain Cleaners; Plain Back, Polished.

Price, Square or Round Point, 12 inch Blade.....per dozen	15.00

Steel Telegraph Shovels and Spoons; Black.

Length of Handle.....feet	6	7	8
Price, Telegraph Shovels.....per dozen	18.50	20.50	22.50
Price, Telegraph Shovels, extra long Strap .....per dozen	20.50	22.50	24.50
Price, Telegraph Spoons .....per dozen	22.00	22.00	24.00

For Dimensions, see page 1086.

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THE W. H. MATTISON SUPPLY CO. CLEVELAND 1085

SCOOPS.

FIG. 3065.

St. Clair, Steel Scoops; Eastern Pattern, Plain or Uniform Gauge.

Number.	Size.	Handle.	Finish.	Price, Per Dozen.	Number	Size.	Handle.	Finish.	Price, Per Dozen.
282	2	D or Long.	Black	8.00	296	6	D or Long.	Half Pol.	10.20
283	3		Black	8.50	297	7		Half Pol.	10.70
284	4		Black	9.00	298	8		Half Pol.	11.20
285	5		Black	9.50	2102	2		Polished	8.50
286	6		Black	10.00	2103	3		Polished	9.00
287	7		Black	10.50	2104	4		Polished	9.50
288	8		Black	11.00	2105	5		Polished	10.00
292	2		Half Pol.	8.20	2106	6		Polished	10.50
293	3		Half Pol.	8.70	2107	7		Polished	11.00
294	4		Half Pol.	9.20	2108	8		Polished	11.50
295	5		Half Pol.	9.70	.....	.....		.....	.....

Vulcan, Steel Scoops; Eastern Pattern, Plain or Uniform Gauge.

082	2	D or Long.	Black	11.50	096	6	D or Long.	Half Pol.	13.70
083	3		Black	12.00	097	7		Half Pol.	14.20
084	4		Black	12.50	098	8		Half Pol.	14.70
085	5		Black	13.00	0102	2		Polished	12.00
086	6		Black	13.50	0103	3		Polished	12.50
087	7		Black	14.00	0104	4		Polished	13.00
088	8		Black	14.50	0105	5		Polished	13.50
092	2		Half Pol.	11.70	0106	6		Polished	14.00
093	3		Half Pol.	12.20	0107	7		Polished	14.50
094	4		Half Pol.	12.70	0108	8		Polished	15.00
095	5		Half Pol.	13.20	.....	.....		Polished	.....

Ajax, Steel Scoops; Thick Center.

82	2	D or Long.	Black	14.00	96	6	D or Long.	Half Pol.	16.20
83	3		Black	14.50	97	7		Half Pol.	16.70
84	4		Black	15.00	98	8		Half Pol.	17.20
85	5		Black	15.50	102	2		Polished	14.50
86	6		Black	16.00	103	3		Polished	15.00
87	7		Black	16.50	104	4		Polished	15.50
88	8		Black	17.00	105	5		Polished	16.00
92	2		Half Pol.	14.20	106	6		Polished	16.50
93	3		Half Pol.	14.70	107	7		Polished	17.00
94	4		Half Pol.	15.20	108	8		Polished	17.50
95	5		Half Pol.	15.70	.....	.....		.....	.....

For Dimensions, see page 1086.

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THE W. M. PATTISON SUPPLY CO. 1086 CLEVELAND

DIMENSIONS OF SHOVELS, SPADES AND SCOOPS.

Shovels.

Size.	Handle.	Point.	Width, Inches.	Length, Inches.
2	D or Long	Square	9½	11¾
3	D or Long	Square	10¼	12½
4	D or Long	Square	10⅞	13⅛
5	D or Long	Square	11⅜	13½
6	D or Long	Square	12	14
8	D or Long	Square	12½	14¾
2	D	Round	9¼	13
2	D or Long	Round	9½	12
3	D or Long	Round	10¾	12½

Coal Shovels.

1	.....	.....	13½	13¾
2	.....	.....	14¼	14¾
3	.....	.....	14¾	15¼
5 Coke	.....	.....	15	17
6	.....	Round	12¾	14
7	.....	Round	11½	15¾

Spades.

2 Common	.....	.....	7½ x 7⅛	12
3 Common	.....	.....	8 x 7½	12¼
2 Ditching	.....	.....	6 x 6½	14½
3 Ditching	.....	.....	5¾ x 6½	16½
4 Ditching	.....	.....	5¾ x 6½	18½
2 Drain	.....	.....	5½ x 4⅛	17½
3 Drain	.....	.....	5½ x 4½	19½
4 Drain	.....	.....	5½ x 4½	21

Scoops, Eastern Pattern.

2	.....	.....	11	15
3	.....	.....	11½	15½
4	.....	.....	11½	16
5	.....	.....	12	16½
6	.....	.....	12¼	17
7	.....	.....	13¼	17
8	.....	.....	13½	[illegible]

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FORKS AND RAKES.

COKE AND COAL FORK.

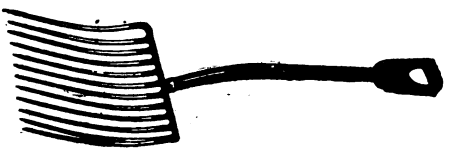

FIG. 3086.

SUGAR BEET FORK.

FIG. 3087.

D. Handle Coke and Coal Forks; Steel Shanks, Strap Ferrules.

Number of Tines	10	12	14	16
Price, Coke Forks.....per dozen	24.00	28.00	33.00	40.00
Price, Coal Forks.....per dozen	25.00	29.00	.....	.....

D. Handle Ore and Stone Forks; Steel Shanks, Strap Ferrules.

Number of Tines	8	10
Price.....per dozen	20.00	25.00

Sugar Beet Forks; Bronze Finished, Steel Shanks, Strap Ferrules.

Number of Tines	7
Price, Unpolished, Blunt Points.....per dozen	18.00
Price, Unpolished, Solid Ball Points.....per dozen	20.00

MALLEABLE IRON RAKE.

FIG. 3088.

CAST STEEL ASPHALT OR TAR RAKE.

FIG. 3089.

Malleable Iron Rakes, Single Shank.

Number of Teeth	12	14	16
Price, Bronze Finish.....per dozen	15.00	16.50	18.00

Cast Steel Asphalt or Tar Rakes, Long Teeth, Extra Heavy.

Price, 18 inch Shank, 4½ foot Handle.....per dozen	25.00

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HOES.

MORTAR HOES.

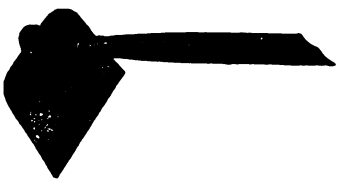

FIG. 3090.

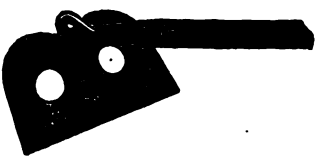

FIG. 3091.

Mortar Hoes.

Blade	inches	9	10
Handles	inches	5½	6
Price, Solid Shank, Full Polished, Bronze Finish	per dozen	21.75	23.50
Price, Socket Shank, Full Polished, Bronze Finish	per dozen	.....	26.00
Price, With Two Holes	per dozen	.....	26.00

GARDEN AND FIELD HOE.

FIG. 3092.

STREET CLEANING HOE.

FIG. 3093.

Garden and Field Hoes.

Price, Columbia Shank, Polished Blade and Handle	per dozen	15.50
Price, Columbia Socket, Polished Blade and Handle	per dozen	17.00

Street Cleaning Hoes.

Price, 6½ x 14 inches, 6 foot Handle	per dozen	15.00

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STORE AND WAREHOUSE TRUCKS.

THE W. M. PATTISON SUPPLY CO. 1089 CLEVELAND

FIG. 3094.

Half Bound.

Number.	Length of Handles, Inches.	Width, Inches.	Diameter of Wheels, Inches.	Weight, Pounds.	Price, Each.
0	42	18	6	32	6.00
1	48	19	7½	43	7.00
2	52	20	8½	60	9.00
3	56	22	9½	77	13.00
4	62	24	10½	110	16.00

Full Bound.

1	48	19	7½	50	8.00
2	52	20	8½	68	10.50
3	56	22	9½	87	15.00
4	62	24	10½	125	18.50

FIG. 3095.

Barrel Trucks.

Number.	Length of Handles, Inches.	Width, Inches.	Diameter of Wheels, Inches.	Weight, Pounds.	Price, Each.
1	47	19	6⅞	55	9.00
2	50	20	7⅜	75	11.00
3	54	22	8¾	90	16.00
4	60	24	10¾	117	21.00

FIG. 3096.

Bag Trucks.

Length, Inches.	Width at Nose, Inches.	Diameter of Wheels, Inches.	Weight, Pounds.	Price, Each.
42	11½	6	29	5.00
42	11½	6	31	8.00

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STEEL TRUCKS.

FIG. 3097.
Nos. 2 and 3.

FIG. 3098.
Nos. 4 and 4 B

FIG. 3099.
No. 4. A

FIG. 3100.
No. 4 Barrel.

Number.	Length, Inches.	Width, Inches.	Diameter of Wheel, Inches.	Diameter of Axle, Inches.	Weight, Pounds.	Price, Each.
2	55	21	$7\frac{3}{4}$	$\frac{7}{8}$	75	6.50
3	60	22	$8\frac{3}{4}$	1	90	7.80
4	64	24	$10\frac{5}{8}$	$1\frac{1}{8}$	128	10.20
4 A	64	24	$10\frac{5}{8}$	$1\frac{1}{8}$	135	12.20
4 B	64	24	$10\frac{5}{8}$	$1\frac{1}{8}$	146	12.70
*4	65	$25\frac{1}{2}$	$10\frac{5}{8}$	$1\frac{1}{8}$	120	11.00

*Barrel Truck: width at nose, 17 inches.

TRUCK CASTERS.

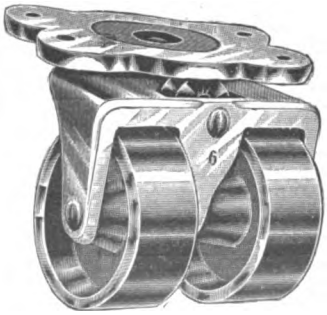

FIG. 3101.

FIG. 3102.

Truck Casters, Fig. 3101.

Round Plate.				Oblong Plate.						
Diameter of Wheels ...inches	$1\frac{3}{4}$	$2\frac{1}{4}$	$2\frac{1}{2}$	$1\frac{3}{4}$	$2\frac{1}{4}$	$2\frac{1}{2}$	$3\frac{1}{8}$	$3\frac{5}{8}$	$4\frac{1}{8}$	$4\frac{1}{2}$
Face of Wheels..... inches	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{1}{8}$	$1\frac{1}{8}$	$1\frac{1}{4}$	
Price .....per set	1.25	1.50	2.00	1.25	1.50	2.00	2.50	4.00	7.00	12.00

Stationary Truck Casters, Fig. 3102.

Diameter of Wheels.....inches	3	4	$4\frac{1}{2}$
Price.....per dozen	3.00	4.20	4.92

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TRUCKS AND SKIDS.

BOX TRUCK.

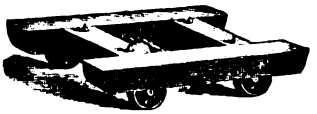

FIG. 3103.

PLATFORM TRUCK.

FIG. 3104.

Box Trucks.

Size	inches	18 x 18	16 x 24
Size of Frame	inches	3 x 3	3 x 3
Weight	pounds	25	35
Price	each	3.50	4.00

Platform Trucks.

Size of Platform	inches	24 x 36	26 x 38	28 x 40	30 x 42	32 x 44	34 x 46
Diameter of Wheels	inches	7¾	7¾	7¾	8¾	8¾	8¾
Weight	pounds	110	120	130	155	158	172
Price	each	14.00	15.00	16.00	17.50	18.50	20.00

SKIDS.

FIG. 3105.

Kind		Light	Heavy	Light	Heavy	Light
Length	feet	6	6	7	7	8
Side Rails	inches	1¼ x 2¾	1¾ x 3	1¼ x 2¾	1¾ x 3¼	1½ x 2¾
Number of Cross Bars		2	2	2	2	3
Weight	pounds	20	34	24	38	30
Price	each	4.80	6.00	5.60	7.00	6.40

Kind		Heavy	Heavy	Heavy	Heavy	.....
Length	feet	8	9	10	12	.....
Side Rails	inches	1¾ x 3½	1¾ x 3½	1¾ x 3¾	1¾ x 4	.....
Number of Cross Bars		3	3	3	4	.....
Weight	pounds	40	45	50	65	.....
Price	each	8.00	9.00	10.00	12.00	.....

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THE W. M. PATTISON SUPPLY CO. 1092 CLEVELAND

WHEELBARROWS.

EUREKA R R BARROW.

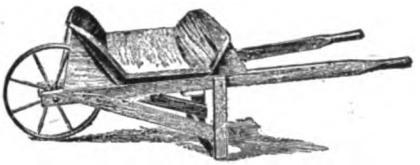

FIG. 3106.

BENT LEG DIRT BARROW.

FIG. 3107.

Wooden Wheelbarrows.

Price, Eureka, Bolted, Wood or Iron Wheel	each	2.25
Price, Bent Leg, Wood or Iron Wheel	each	2.50

AJAX BARROW.

FIG. 3108.

KELLAR CONCRETE BARROW

FIG. 3109.

KELLAR 1144 BARROW

FIG. 3110.

KELLAR MILL BARROW.

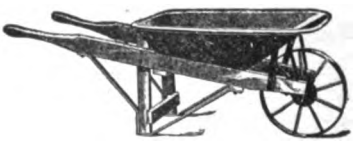

FIG. 3111.

Steel Tray Wheelbarrows.

Figure, Number.	Diameter Wheel, Inches.	Number of Spokes.	Size Spokes, Inches.	Tire, Inches.	Axle, Inches.	Gauge of Tray.	Capacity, Cubic Feet.	Weight, Pounds.	Price, Each.
3108	17	8	$\frac{3}{8}$	$1\frac{1}{2} \times \frac{3}{16}$	$\frac{5}{8}$	16	3	50	4.00
3109	17	8	$\frac{7}{16}$	$1\frac{1}{2} \times \frac{3}{16}$	$\frac{5}{8}$	15	3	50	5.00
3110	17	8	$\frac{1}{2}$	$1\frac{1}{2} \times \frac{3}{16}$	$\frac{5}{8}$	14	5	70	5.50
3111	18	9	$\frac{9}{16}$	$2 \times \frac{7}{16}$	$\frac{3}{4}$	12	5	110	11.00

Repairs for Figs. 3108, 3109, 3110 and 3111 wheels, 1.00 each; Handles, 1.00 per pair; Bearings, .25 per pair; Trays, 2.50 each.

Figs. 3109 and 3110 are furnished with handles extending beyond wheel, to prevent slipping when dumped.

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WHEELBARROWS.

THE W. M. PATTISON SUPPLY CO. 1093 CLEVELAND

STEEL BOTTOM STONE BARROW.

FIG. 3112.

TUBULAR STEEL PIG METAL BARROW.

FIG. 3113.

Diameter of Wheel, 16½ inches: Tire, 1¾ x ⅝ inches.

Price, Stone Barrows	each	5.85
Price, Pig Metal Barrows	each	18.00

TUBULAR STEEL MORTAR BARROW.

FIG. 3114.

Length of Tray, 39 inches; width, 32 inches; depth, 14 inches; length over all, 63 inches.

Length over all when handles are telescoped, 46 inches.

Price	each	9.00
Price, with Telescope Handles	each	10.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1094

TUBULAR STEEL WHEELBARROWS.

FIG. 3115.

Dirt Barrows.

Number.	Size of Wheel, Inches.	Tire, Inches.	Length on Top, Inches.	Width on Top, Inches.	Depth at Wheel, Inches.	Depth at Handle, Inches.	Greatest Length, Inches.	Gauge of Tray.	Capacity, Cubic Feet.	Weight, Pounds.	Price, Each.
4	16½	1½ x 3/16	32	29	7	5	67½	15	3	70	10.75
4½	16½	1½ x 3/16	32	29	7	5	67½	14	3	75	11.50
5	16½	1½ x 3/16	35½	28½	8½	6	67½	14	4	78	13.50

Mining Barrows.

6	16½	1¾ x 3/16	32	29	7	5	67½	14	3	83	12.25
7	16½	1¾ x 3/16	35½	28½	8½	6	67½	14	4	88	14.25

Foundry Barrows.

8	16½	1¾ x 3/16	32	29	7	5	67½	12	3	95	14.00
9	16½	1¾ x 3/16	35½	28½	8½	6	67½	12	4	98	16.00

Coal Barrows.

7	16½	1¾ x 3/16	35½	28½	8½	6	67½	14	4	88	14.25
10	16½	1¾ x 3/16	41½	33	11½	8	67½	13	6	109	20.00

Coke Barrows.

12	16½	1¾ x 3/16	41½	33	11½	8	67½	15	6	93	18.50

Capacities; Pounds and Bushels of Coal and Coke Barrows.

Number.....	7	10	12
Capacity..... .....pounds	215 to 250 Coal	400 to 450 Coal	5 Bushels of Coke

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THE W. M. PATTISON SUPPLY CO. 1095 CLEVELAND

TUBULAR STEEL WHEELBARROWS.

COAL AND ORE OR SMELTER BARROW.

FIG. 3116.

Size of Tray: Bottom, 20½x21 inches, Top, 44 inches long by 40 inches wide at wheel end by 31 inches wide at handle end. Greatest depth, 14½ inches; Diameter of wheel, 20 inches; Tire, 2 inches. Capacity even full, 10 cubic feet. Capacity even full, Nut Coal, 400 pounds; heaping full 480 pounds, even full Lump Coal, 450 pounds; heaping full, 650 pounds. Weight of Coal Barrow 265 pounds; Smelter Barrow 350 pounds.

Price, Coal Barrows	each	38.00
Price, Smelter Barrows	each	45.00

CHARGING BARROW.

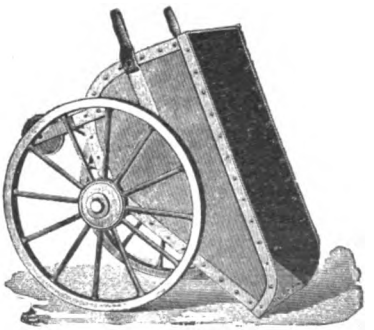

FIG. 3117.

Size of Box: Length 44½ inches; width, 25½ inches; height, 22 inches. Diameter of Wheels, 34 inches; Tire, 2 x 1 inches. Capacity, 10 cubic feet, 1500 pounds iron ore, 500 pounds of coal. Weight 575 pounds.

Price	each	50.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1096

CONTRACTORS' DUMP CARTS.

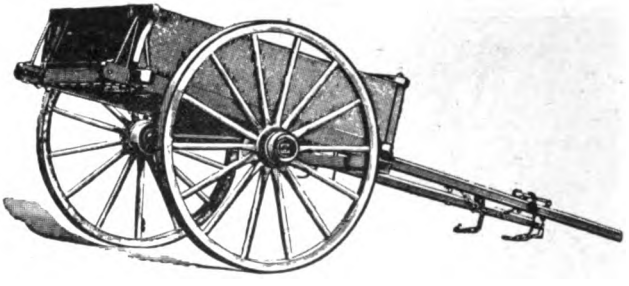

FIG. 3118.

HEAVY CART WITH WING BOARD.

FIG. 3119.

Dimensions: Heavy Carts; Bed, inside, 66 inches long, 44 inches wide, 14 inches deep. Light Carts; same length and width, 12 inches deep; Wheels, 54 inches in diameter; Hubs, 9 x 12 inches; Spokes, fourteen 2½ inch; Tires, 3 x ½ inches; Steel Axle, 2¼ inches square; Spindle, 2¼ x 10 inches. Wood Axle Bed, 3¼ x 8 inches; Shafts, 2¾ x 3¼ inches; Cross Bar, 2½ x 8 inches. Heavy Cart: Capacity 24 cubic feet; Light Cart: Capacity, 21 cubic feet; Weight: Light Carts, 650 pounds; Heavy Carts, 800 pounds; Heavy Carts with Wing Boards, 890 pounds; Wheels Track, 5 feet 2 inches.

Price, Light Carts	each	45.00
Price, Heavy Carts	each	50.00
Price, Heavy Carts with Wing Boards	each	63.00

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THE W. M. PATTISON SUPPLY CO. 1097 CLEVELAND

CONTRACTORS' DUMP CARS.

CLASS E, TWO WAY DUMP STEAM SHOVEL CAR.

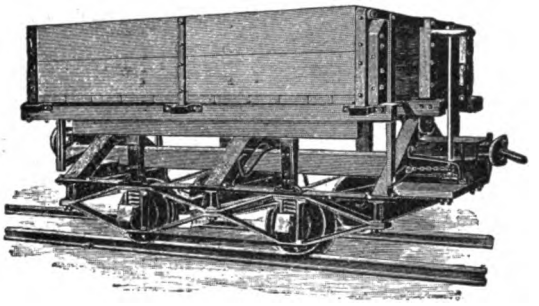

FIG. 3120.

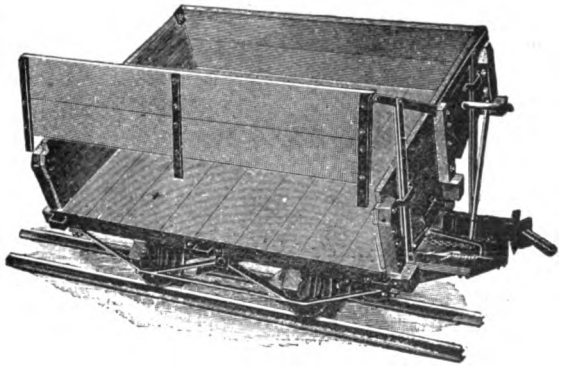

FIG. 3121.

The above illustrations show an Improved Class E, Two-Way Dump Car, with Diamond Frame Steel Running Gear and Springs over Axles.

Inside Dimensions of Bed: Length, 96 inches; width, 72 inches; depth, 20 inches. Total length from end to end of coupler, 141 inches. Total width over all, 78 inches.

Chilled Plate Wheels: 16 inches in diameter; weight, 130 pounds each.

Axles: 2¾ inch Round Steel. Bronze Journal Bearings, 2½ x 7 inches.

Height: From top of rail to center of draw-bar, 27 inches; from top of rail to floor, 40 inches; from top of rail to top of bed, 60 inches.

Weight of Car: Approximately, 3500 pounds. Eight to a car load.

Furnished with brakes when so ordered.

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THE W. M. PATTISON SUPPLY CO. 1088 CLEVELAND

FOUR WHEEL GEARED LOCOMOTIVE.

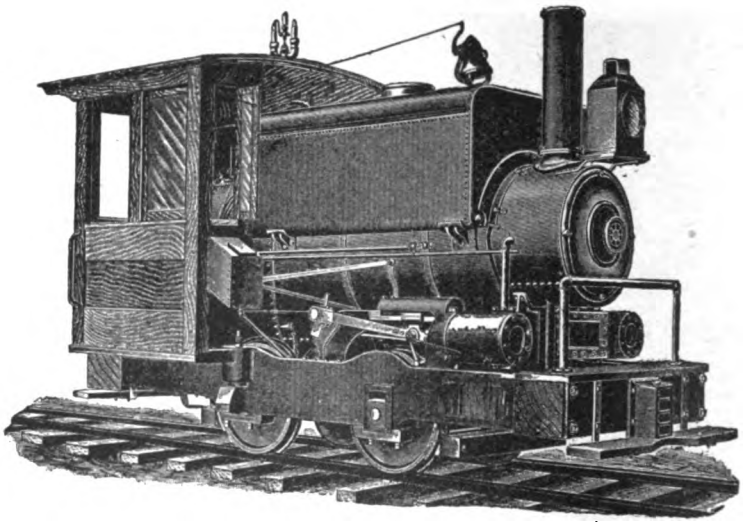

FIG. 3122.

Engines	7 x 10
Wheel Base.....inches	50½
Width over all.....feet	6
Length over all.....feet and inches	16-5
Height above Rail.....feet and inches	9-2
Diameter Drivers.....inches	30
Boiler, Locomotive Type, Heating Surface.....square feet	170
Boiler, Grate Surface.....square feet	5.2
Tank Capacity.....gallons	320
Weight in Working Order, about.....pounds	24000

In writing for information, prices, etc., please give the following data:

The gauge of track. The radius of shortest curve. Length and ratio of steepest grade and number of loaded or empty cars required to be handled on same, together with the weight of one car and of its maximum load.

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THE W. M. PATTISON SUPPLY CO. 1099 CLEVELAND

PLOWS.

ROAD PLOW.

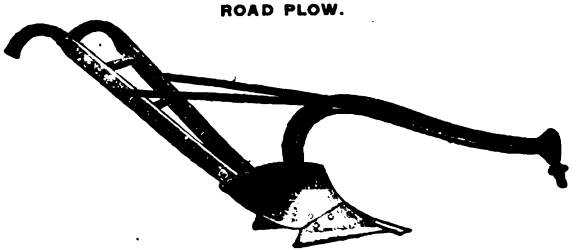

FIG. 3123.
No. 32.

ROAD PLOW.

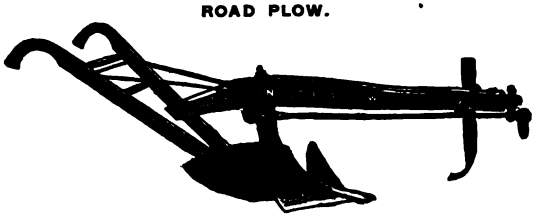

FIG 3124.
No. 20.

RAILROAD AND TOWNSHIP PLOW.

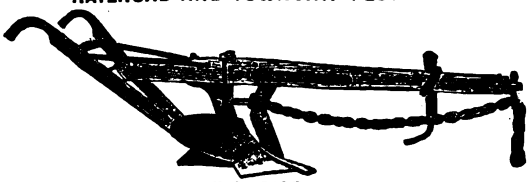

FIG. 3125.
No. 60.

ROAD PLOW.

FIG. 3126.
No. 75.

Number.	Cut, Inches.	Weight, Pounds.	Price, With Extra Point, Each.	Price, Extra Points, Each.
32	10	104	17.00	2.50
20	9	100	20.00	2.50
60	11	160	30.00	.....
75	10	279	35.00	4.00

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THE W. M. PATTISON SUPPLY CO. 1100 CLEVELAND

DITCH OR SEWER PLOW.

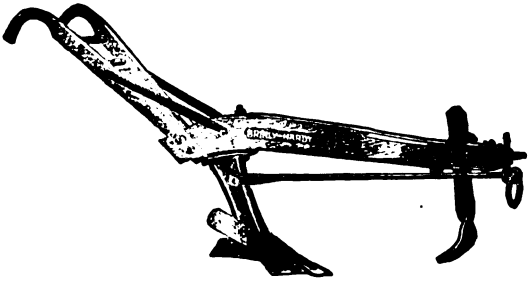

FIG. 3127.

ROAD PLOW.

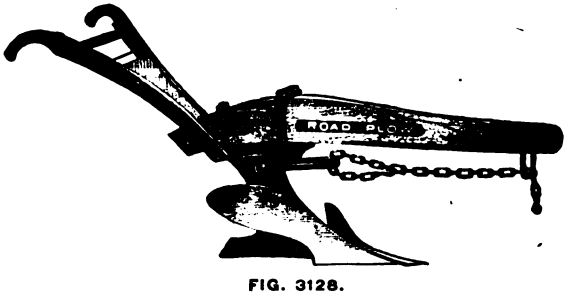

FIG. 3128.
No. 80.

LOCOMOTIVE PLOW.

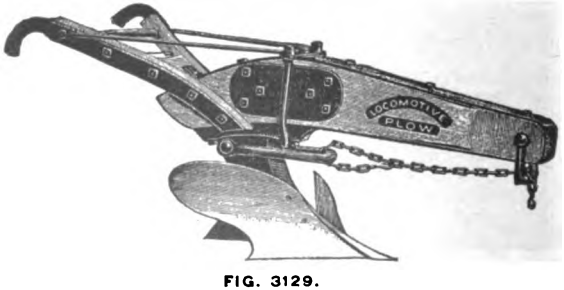

FIG. 3129.
No. 100.

Number.	Cut, Inches.	Weight, Pounds.	Price, Each.	Price Extra Mould and Point, Each.
Ditch or Sewer.	5	83	13.50 With Extra Point	2.00
80	7	238	40.00	8.00
100	14	450	80.00	18.00

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SCRAPERS.

THE W. M. PATTISON SUPPLY CO. 1101 CLEVELAND

PRESSED STEEL SCRAPER.

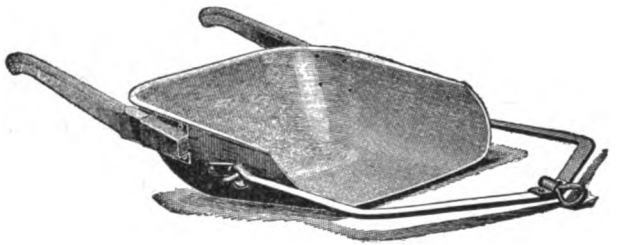

FIG. 3130.

Number	1	2	3
Capacity.....cubic feet	7	5	3½
Weight.....pounds	100	90	80
Price.....each	8.40	7.90	7.50

Broad Single Runner, extra 1.50: Without Runners, deduct .20.

DOAN DITCHING SCRAPER.

FIG. 3131.

TONGUE SCRAPER.

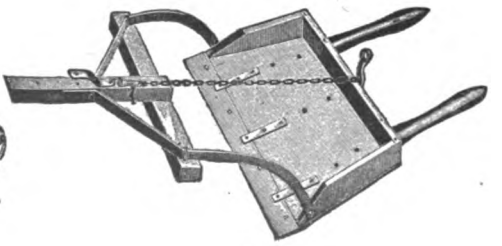

FIG. 3132.

Price, Doan Scraper, width 48 inches, weight 75 pounds.....each	7.50
Price, Tongue Scraper, width 48 inches, weight 135 pounds.....each	10.00

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THE W. H. PATTISON SUPPLY CO. CLEVELAND 1102

SCRAPERS.

IMPROVED PRESSED BOWL WHEEL SCRAPER. WITH SAND PROOF HUB WHEELS.

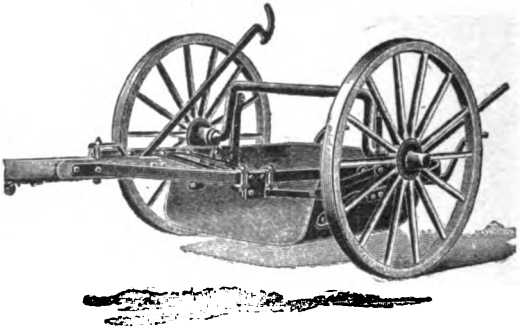

FIG. 3133.

Number 1: Capacity, 9 to 10 cubic feet; Wheels, 34 inches diameter; Tire, 3 inches; Size of Bowl: Length, 34 inches; Width, 34 inches; Depth, 11½ inches; Tracks, 4 feet 2 inches; Weight, 381 pounds...price each	30.50
Number 2: Capacity, 13 cubic feet; Wheels, 40 inches diameter; Tire, 3 x¼ inches. Size of Bowl: Length, 36 inches; width 38 inches; Depth, 13½ inches, Inside measurement. Tracks 4 ft. 7 in. Weight 600 pounds, price each	40.50
Number 3: Capacity, 17 cubic feet; Wheels, 46 inches diameter; Tire, 3 x ¼ inches. Size of Bowl: Length 42 inches; Width 42 inches; Depth 16 inches, Inside Measurement. Tracks, 5 feet 2 inches; Weight 744 pounds.....price each	44.50

IMPROVED PRESSED BOWL WHEEL SCRAPER. WITH SAND PROOF METAL WHEELS.

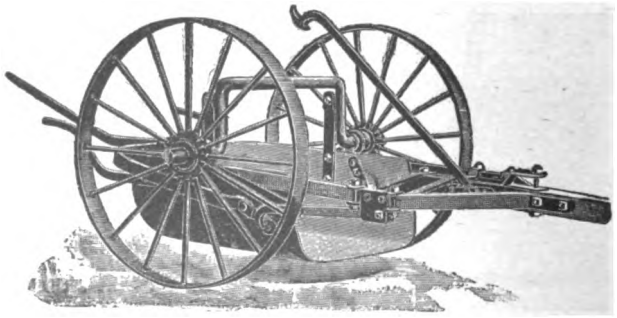

FIG. 3134.

Number 1:	Tire, 3 x ¾ inches; Weight, 508 pounds.....price each	30.50
Number 2:	Tire, 4 x ½ inches; Weight, 693 pounds.....price each	40.50
Number 3:	Tire, 4 x ½ inches; Weight, 850 pounds.....price each	44.50

Other dimensions, etc., same as corresponding numbers above.

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THE W. M. PATTISON SUPPLY CO. 1103 CLEVELAND

SCRAPERS.

IMPROVED SQUARE BOX WHEEL SCRAPERS. WITH IMPROVED SAND PROOF HUB WHEELS.

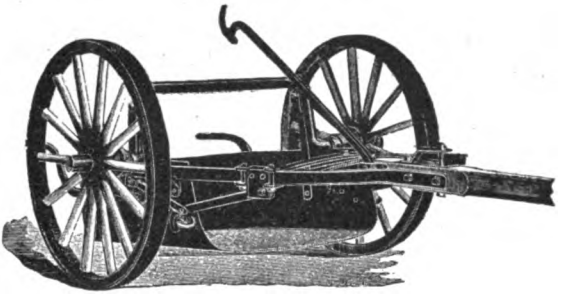

FIG. 3135.

Number 1: Capacity 9 to 10 cubic feet; Wheels 34 inches diameter; Tire, 3 inches. Size of Box: Length, 34 inches; width 34 inches; Depth, 11½ inches; Tracks, 4 feet 2 inches; Weight 390 pounds.....price each	30.00
Number 2: Capacity, 12 cubic feet; Wheels, 40 inches diameter; Tire, 3 x ¼ inches. Size of Box: Length; 36 inches; Width, 38 inches; Depth, 13½ inches, Inside Measurement. Tracks, 4 feet 7 inches; Weight, 605 pounds.....price, each	39.50
Number 3: Capacity, 16 cubic feet; Wheels, 46 inches diameter; Tire, 3 x ¼ inches. Size of Box: Length, 42 inches; Width, 42 inches; Depth, 16 inches, Inside Measurement. Tracks, 5 feet 2 inches; Weight, 755 pounds.....price, each	43.50

AUTOMATIC FRONT END GATE.

FIG. 3136.

Price, For No. 1 Scrapers.....each	3.00
Price, For Nos. 2 and 3 Scrapers.....each	4.50

Whiffletrees and Neck Yoke, extra, 5.00.

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THE W. M. PATTISON SUPPLY CO. 1104 CLEVELAND

ROAD ROLLERS.

PLAIN BALLAST BOX ROLLER.

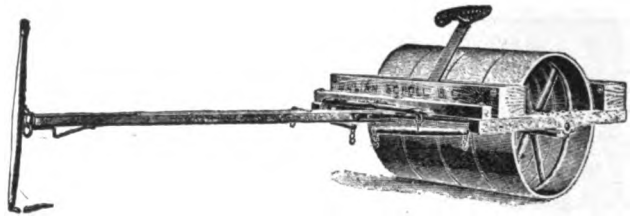

FIG. 3137.

Number of Sections.....	4	5	6	3	4	5	6
Face, Each Section .....inches	12	12	12	15	15	15	15
Diameter.....inches	36	36	36	48	48	48	48
Weight.....pounds	2500	3000	3500	3500	4500	5500	6500
Price.....each	150.00	175.00	200.00	200.00	250.00	310.00	360.00

REVERSIBLE ROLLER.

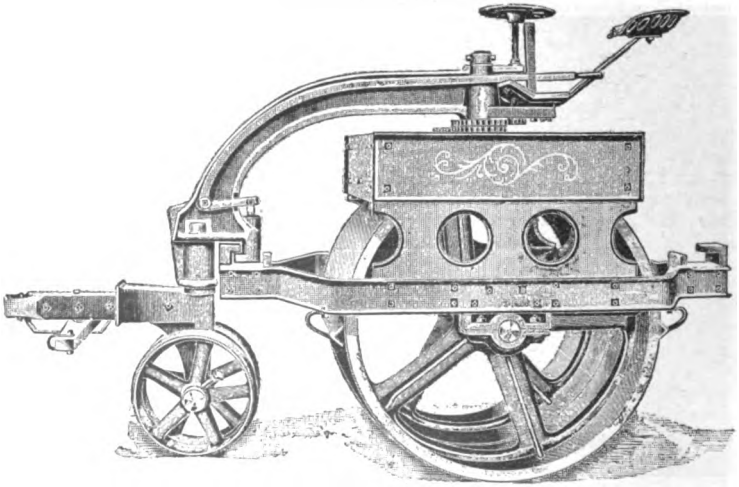

FIG. 3138.

Width.....inches	54	54	54	54
Diameter.....inches	54	56	58	60
Weight.....tons	3	4	5	6

Prices on Application.

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THE W. M. PATTISON SUPPLY CO. 1105 CLEVELAND

CONCRETE MIXERS.

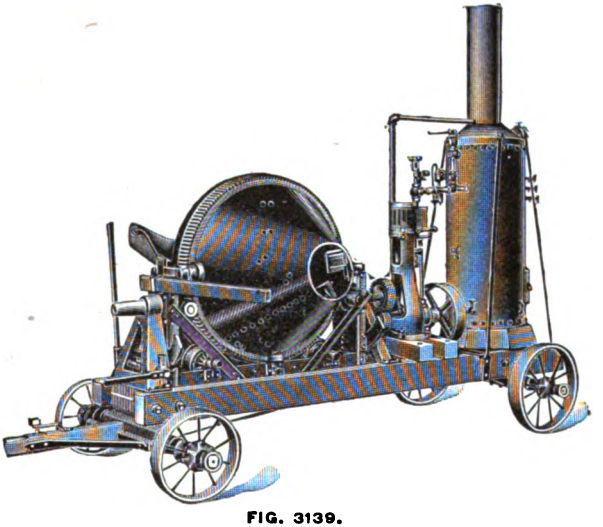

FIG. 3139.

Number	1	2	2½	3
Standard Charge.....cubic feet	9	13½	16	28
Extreme Capacity.....cubic feet	12	17	21	35
Mixing Capacity per hour.....cubic yards	10	16	20	35
Horse Power Required.....	6	8	10	16
Weight on Skids with Pulley.....pounds	2500	3800	4500	7300
Weight on Truck with Pulley.....pounds	3000	4400	5500	.....
Weight Mounted with Steam Engine and Boiler....pounds	5000	7400	8400	.....
Weight Mounted with Gasoline Engine.....pounds	5000	.....	.....	.....

No. 1, will mix a batch of any proportions based on a single bag of cement. No. 2, will mix a batch of any ordinary proportions based on two bags of cement. No. 2½ will mix a batch of very lean concrete, such as is occasionally required, using two bags of cement, or any ordinary concrete using three bags. No. 3, will hold a batch of any proportions using a barrel or 4 bags of cement.

It is a Batch Mixer.

It is fed while running.

It is discharged by tilting while running.

The discharge can be either partial or entire, and is under perfect control.

Complete discharge can be effected in two turns of the Drum.

The mixing speed can be rapid.

The alternating sidewise movement of materials is simultaneous with the rolling over of the materials, and is very efficient.

No laying out of batches in layers is required.

The measured materials can be fed into the Drum in any order.

The quality of the mixture is the best obtainable.

The time per batch is less than with any other machine.

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ROCK DRILLS.

SINGLE SCREW COLUMN. DOUBLE SCREW COLUMN.

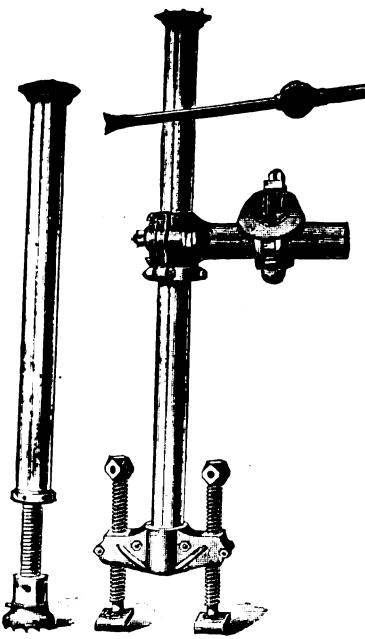

FIG. 3140. FIG. 3141.

DRILL IN HORIZONTAL POSITION MOUNTED ON TRIPOD.

FIG. 3142.

Number and Diameter of Cylinder, Inches.	Length of Stroke, Inches.	Length of Feed, Inches.	Depth of Hole Will Drill, Feet.	Diameter of Hole, Will Drill, Inches.	Drill Steel Used, Inches.	Size of Boiler, Horse Power.	Supply Inlet, Inches.	Weight, Ready for Shipment, Pounds.	Price, Complete, Unmounted, Each.	Price, Adjustable Tripod, Complete, Each.	Price, Single, and Double Screw Columns, Each,
2	4	12	4	1–1		5		125	170.00	30.00	50.00
2	4	12	6	1–1		5		135	190.00	30.00	50.00
2	5	20	10	1–2	1–1	8	1	205	225.00	50.00	50.00
2	5	24	10–12	1–2	1–1	8	1	235	250.00	50.00	60.00
3	6	24	10–14	1–2	1–1	8	1	270	275.00	50.00	.....
3	7	24	14	1–2	1–1	10	1	305	300.00	50.00	.....
3	7	24	14	1–2	1–1	10	1	315	300.00	50.00	.....
3	7	24–30	20	1–3	1–1	10	1	450	320.00	55.00	60.00
3	7	24–30	25	1–3	1–1	10	1	450	320.00	55.00	80.00
5	8	36	30	3 up	1–1	15	1	772	400.00	65.00	.....

Length of Screw Columns; 6 and 8 feet.

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THE W. M. PATTISON SUPPLY CO. 1107 CLEVELAND

AIR COMPRESSORS.

WATER JACKETED.

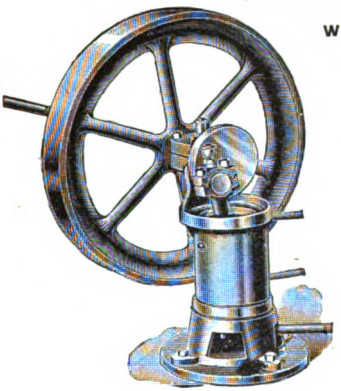

FIG. 3143.

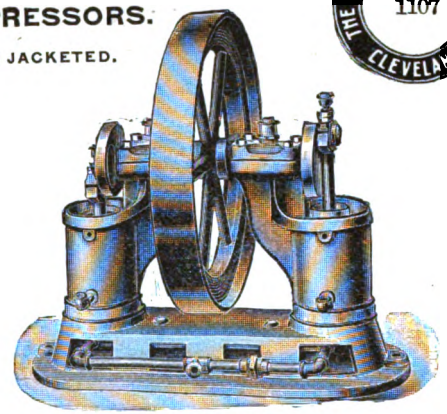

FIG. 3144.

Diameter of Cylinder, Inches.	Stroke, Inches.	Revolutions, Per Minute.	Free Air Per Minute, Cubic Feet.	Air Pressure, Pounds.	Discharge, Inches.	Water Pipe, Inches.	Floor Space, Inches.	Pulley, Inches.	Weight With Fly Wheel, Pounds.	Weight With Fly Wheel and Loose Pulley, Pounds.	Price, With Fly Wheel, Each.	Price With Fly Wheel and Loose Pulley, Each
3	4	150	2½	150	½–⅝	¼	24x20	24x3	210	250	50.00	60.00
*3	4	150	5	150	½–⅝	¼	24x31	24x3	340	.....	100.00	.....
*5	6	200	27	.....	.....	.....	.....	.....	.....	.....	200.00	.....

*Double Cylinder.

BELT DRIVEN, WITH UNLOADING DEVICE.

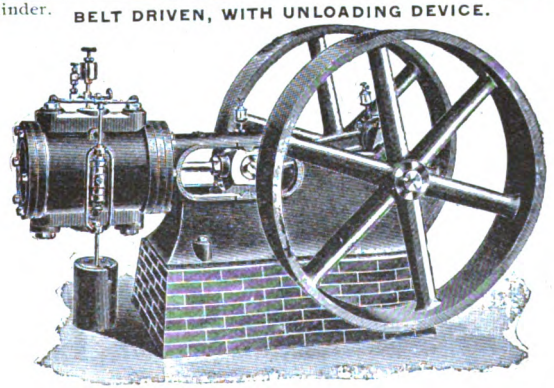

FIG. 3145.

Cylinder, Diameter and Stroke, Inches.	Revolutions, Per Minute.	Piston Speed, Per Minute.	Free Air Per Minute, Cubic Feet.	Air Pressure, Pounds.	Horse Power.	Suction and Discharge, Inches.	Shaft, Inches.	Wheels, Inches.	FLOOR SPACE, INCHES.			Weight, Pounds.
									Length.	Width.	Height Above Foundation.	
6	150	150	29	100	6	2	2 1/16	30x4 1/4	57	22 3/4	24	1150
8	150	200	67	100	14	2½	2 3/16	40x5½	70½	32	32	2300

Prices on application.

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THE W. M. PATTISON SUPPLY CO. 1108 CLEVELAND

AIR COMPRESSORS.

STEAM ENGINE ATTACHED.

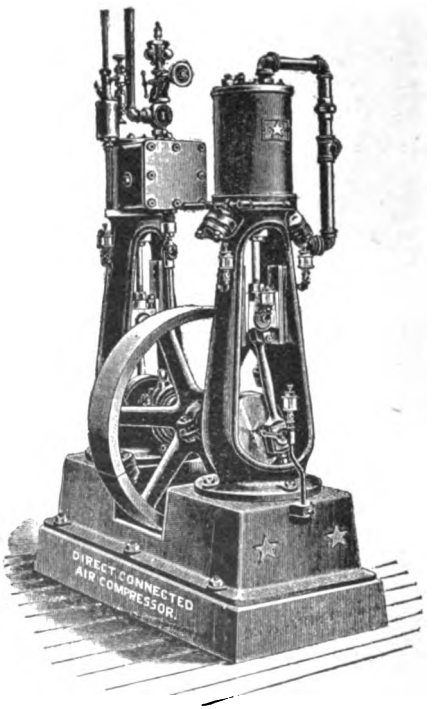

FIG. 3146.

Diameter of Cylinders and Length of Stroke, Inches.	Revolutions, Per Minute.	Free Air, Per Minute, Cubic Feet.	Air Pressure, Pounds.	Steam Pipe, Inches.	Exhaust and Air Discharge, Inches.	Water Pipe, Inches.	Fly Wheel, Inches.	Floor Space, Inches.	Height, Inches.	Weight, Pounds.	Price, Each.
6	130	25	25–100	1	1¼	⅜	30 x 5½	22 x 52	69	1700	320.00
7	130	40	25–100	1¼	1½	⅜	38 x 6½	26 x 61	78	2550	414.00
8	130	60	25–100	1½	2	½	48 x 7½	30 x 69	94	3575	520.00

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THE W. M. PATTISON SUPPLY CO. 1109 CLEVELAND

JAW STONE CRUSHER, MOUNTED, WITH 14 FOOT EVEVATOR AND CHUTE SCREEN. CAPACITY, 150 TO 200 TONS PER DAY.

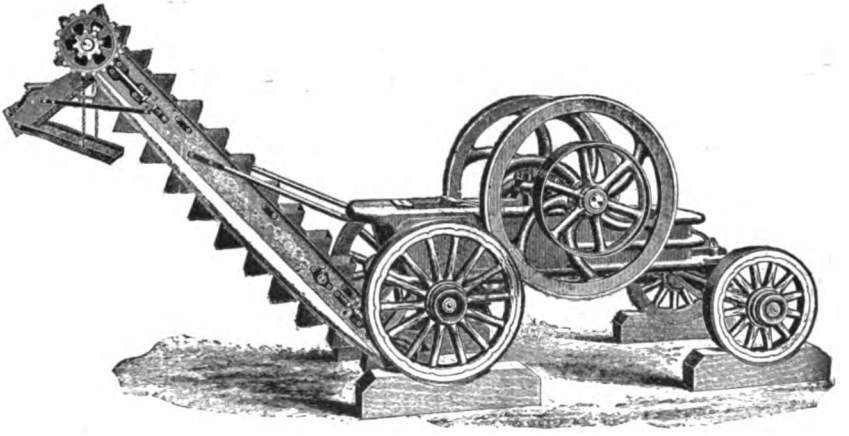

FIG. 3147.

Mounted on Wheels or Skids as desired.

SECTIONAL VIEW OF STONE CRUSHER.

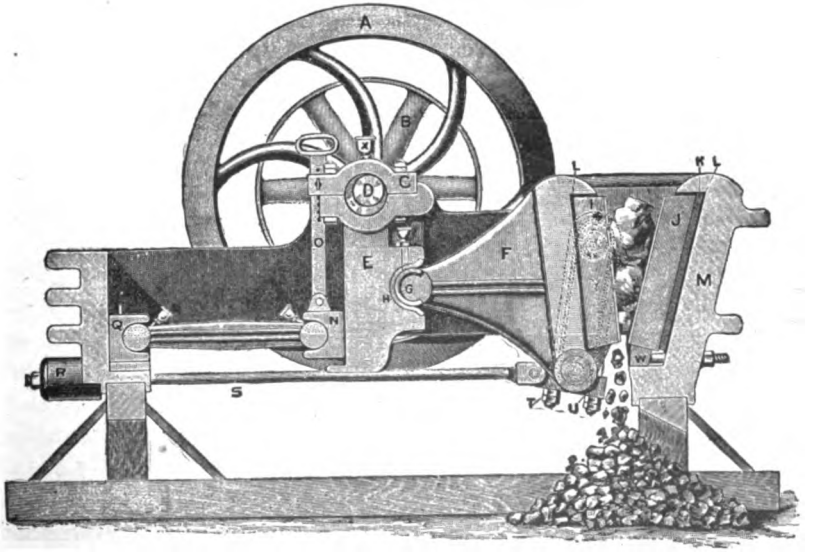

FIG. 3148.

For description Etc., see page 1110.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

STONE CRUSHERS.

Number.	Jaw Opening. Inches.	Capacity. Per Hour. Tons.	Revolutions Per Minute.	Horse Power Required	Diameter of Pulleys, Inches.	Width of Belt, Inches.	Floor Space Required. Feet.	Weight, Pounds.
2½	7 x 13	8 to 12	300	10	30	6	2½ x 7	7500
3	8 x 15	10 to 14	300	12	30	6	2½ x 7	11000
4	10 x 18	15 to 20	300	18	30	8	3 x 8	15000

Prices on application of Stone Crushers, Elevators, Chute Screens, Portable Bins, etc. Send for special catalogue of Gyratory Crushers.

Description of Parts as Shown in Sectional View.

A Heavy Fly Wheel (two).
B Pulley.
C Pitman Cap.
D Main Shaft.
E Pitman.
F Front Toggle.
G Renewable Toggle Cap.
H Renewable Pitman Seat.
I Active Die.
J Stationary Die.
K Interchangeable Shims.
LL Beds of Zinc.
M End of Main Frame.
N Adjustable Rear Toggle Seat
O Adjusting Bar for Rear Toggle Seat.
P Rear Toggle.
Q Rear Toggle Block.
R Rubber Spring.
S Spring Bar.
T Hanger Stirrup.
U Lower Hanger Cap.
V Steel Check Plate.
W Adjusting Bolt.
X Automatic Grease Cups.
Y Center Hanger Block.
Z Upper Hanger Cap.
XX Hanger Pin.

The amount of product obtainable from any crusher is governed by the fineness to which the stone is crushed, the speed at which the machine is run, the diligence with which it is fed and the character or quality of the stone. This will explain the variation in the capacity ascribed to each size of machine. The maximum can be obtained when crushing good lime or kindred stone, with ample power at the proper speed, with a two-inch opening at the bottom of the dies and when fed to its full limit. The conditions are very rare where the minimum capacity can not be exceeded. The power called for is for the crusher only, or with a short elevator; if long elevator and screen is used, two additional horse-power should be provided. For a portable plant, or where bins for storing the stone are not used, a fourteen-foot elevator will be found of ample length. In ordering screens be sure and state the size of perforations wanted in each section and remember a two-section screen separates the crushed stone into three sizes, the largest size passing out of the end.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1111

CRUSHING ROLLS.

BELT ROLLS.

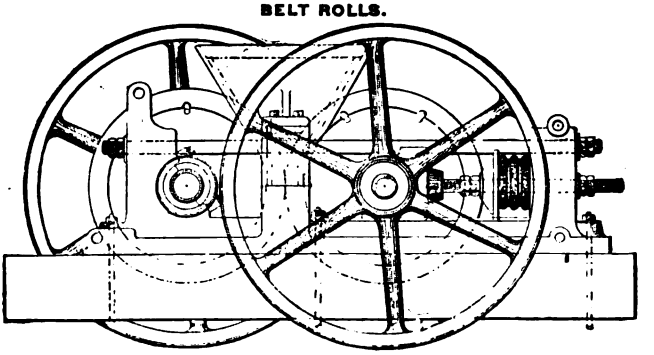

FIG. 3149.

GEARED ROLLS.

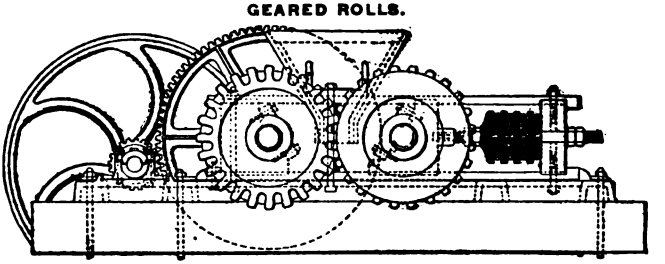

FIG. 3150.

Belt Rolls. **Geared Rolls.**

Rolls, Inches.	Revolutions Per Minute	Driving Pulleys, Inches.	Weight, Pounds.	Rolls, Inches.	Revolutions Per Minute.	Pulley, Inches.	GEARS, NUMBER OF TEETH. Gear.	Pin.	Weight, Pounds.
9 x 9	175	20 x 6½	1300	12 x 12	140	16 x 6½	50	17	2600
12 x 12	150	36 x 8½	3000	16 x 10	130	20 x 8½	63	19	4000
16 x 10	140	36 x 8½	4000	20 x 10	120	36 x 10½	57	14	7800
18 x 10	135	42 x 8½	5300	22 x 10	110	36 x 10½	57	14	8000
20 x 10	130	42 x 8½	6800	24 x 14	90	36 x 10½	57	14	10200
22 x 10	120	42 x 8½	7300	*24 x 14	90	36 x 10½	57	14	11000
24 x 14	100	48 x 10½	9200	30 x 12	80	48 x 12½	60	14	15000
*24 x 14	100	48 x 10½	10000	30 x 16	80	48 x 12½	60	14	17700
30 x 16	90	60 x 12½	15700	36 x 14	65	48 x 12½	60	14	20000
36 x 16	75	60 x 12½	19300	....	.....	.....	.....	.....	.....
36 x 18	75	60 x 12½	20300	....	.....	.....	.....	.....	.....

* Made Sectional.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1112

WATER PAILS.

GALVANIZED.

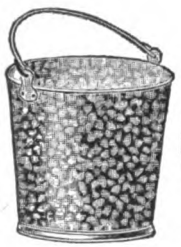

FIG. 3151.

EUREKA OAK.

FIG. 3152.

FIG. 3153.

J. I. C. OAK.

FIG. 3154.

Galvanized Iron Water Pails.

Capacity.....quarts	7	10	12	14	16	20
Price.....per dozen	4.75	5.50	6.00	6.25	9.50	16.00

Eureka and J. I. C. Oak Water Pails.

Price, Eureka Oak Pails.....per dozen	6.00
Price, J. I. C. Oak Pails.....per dozen	10.00

Mortar or Cement Pails.

HUDSON RIVER TUNNEL PATTERN.

FIG. 3155.

AQUEDUCT PATTERN.

FIG. 3156.

HEAVY PATTERN.

FIG. 3157.

Price, Hudson River Tunnel Pattern, 14 quart; black.....per dozen	20.00
Price, Hudson River Tunnel Pattern, 14 quart; galvanized...per dozen	22.50
Price, Aqueduct Pattern, 14 quart; black.....per dozen	24.00
Price, Aqueduct Pattern, 14 quart; galvanized.....per dozen	26.00
Price, Heavy Pattern; galvanized.....per dozen	24.00

Eureka and J. I. C. Oak Mortar Pails, 8.00 per dozen.

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MORTAR PANS, SCREENS, RIDDLES, ETC.

STEEL MORTAR PAN.

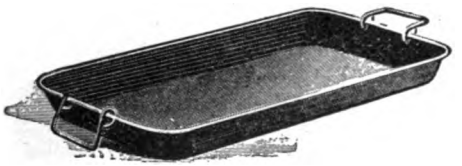

FIG. 3158.

STEEL HAND BARROW.

FIG. 3159.

Mortar Pan.

Length, Inches.	Width, Inches.	Depth, Inches.	Weight, Pounds.	Price, Each.
29	17	3½	13	1.50
35	19	3½	17	1.75
39	19	3½	19	2.00

Hand Barrows.

Length, Inches.	Width, Inches.	Depth, Inches.	Gauge of Steel.	Price, Plain Bottom, Each.	Price, Double Bottom, Each.	Price, Triple Bottom, Each.
24	18	6	18	2.40	2.60	2.80
24	18	6	16	2.60	2.80	3.10
36	18	6	18	2.90	3.10	3.30
36	18	6	16	3.00	3.30	3.60

SAND SCREEN.

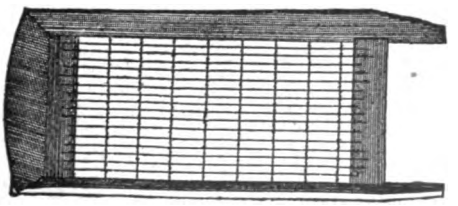

FIG. 3160.

RIDDLE.

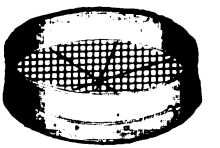

FIG. 3161.

Sand Screens.

Price, No. 3; 4 or 5 Mesh; 60 inches high, 24 inches wide..... each	4.50
Price, No. 3; 4 or 5 Mesh; 72 inches high, 28 inches wide.....each	5.00

Coal Screens.

Price, No. 1; 72 inches high, 28 inches wide, all meshes.....each	8.00
Price, No. 2; 72 inches high, 34 inches wide, all meshes.....each	9.00
Price, No. 3; 72 inches high, 36 inches wide, all meshes.....each	10.00

Meshes of wire furnished; ¼, ½, ¾, 1, 2 and 2½ inches.

Foundry Riddles; 18 Inch Frame.

Mesh Number.....	2	3	4	5	6	7	8	10	12
Price, No. 2; Plain Wire...per dozen	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Price, No. 3; Galv. Wire....per dozen	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Price, No. 4; Brass Wire...per dozen	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

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THE W. M. PATTISON SUPPLY CO. 1114 CLEVELAND

HODS AND TROWELS.

STEEL MORTAR HODS.

FIG. 3162.

FIG. 3163.

	Iron Clad.	Hercules.
Size.....inches	24 x 11¾ x 12	25 x 11¾ x 12
Weight.....pounds	11	11½
Price.....each	1.50	1.75

STEEL BRICK HODS.

FIG. 3164.

Size.....inches	22 x 7 x 10
Weight.....pounds	8
Price.....each	1.25

TROWELS.

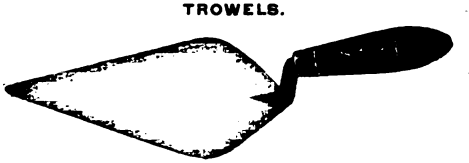

FIG. 3165.

Length.....inches	10	10½	11	11½	12	12½	13
Price.....per dozen	13.25	13.75	14.25	14.75	15.25	15.75	16.25

Pointing Trowels: 5 inch, solid, per dozen, 4.75.

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THE W. M. PATTISON SUPPLY CO. 1115 CLEVELAND

STONE SKIPS AND CEMENT HOISTING BOXES.

STEEL STONE SKIP.

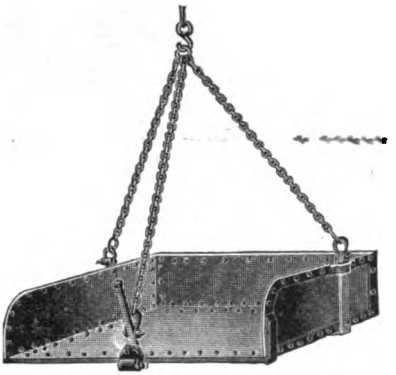

FIG. 3166.

OAK CONCRETE HOISTING BOX.

FIG. 3167.

Stone Skips or Scales for Handling Stone, Brick, Concrete, Cement, Etc. Capacity 35 Cubic Feet.

DIMENSIONS, ETC.

Box, 5 x 6 feet, with sides 14 inches deep, and of No. 8 steel, well riveted and braced. The corners of steel angles, 2 x 2 x ¼ inch. Steel top band, 1¾ x ⅜ inch. Steel Chain Bar, 2¼ x ¾ inch. Three ½ inch chains, each 5 feet long, complete with dumping trigger. Weight, 700 pounds.

Price	each	51.00

Concrete Hoisting Boxes.

Made of oak, well ironed, 3 feet 8 inches square, 3 feet deep with latch or trigger on the side by which box can be dumped by means of a hand line.

Price	each	80.00

Bottom Dumping Concrete Tubs for "Wet Process," made to order.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

CONTRACTORS' TUBS.

STRAIGHT SIDES.

FIG. 3168.

FLARING SIDES

FIG. 3169.

Contractors' Self Dumping Tubs; Straight Sides.

3	28	26	15	25.00	14	38	40	25	50.00
5	31	28	18	27.00	18	43	43	27	60.00
6	31½	29	19	29.00	21	45	46	28	70.00
7	34	30	19	31.00	27	47	50	30½	84.00
8	35	31	19	32.00	36	52	54	33	94.00
10	36	35	21	36.00	41	54	58	36	103.00
12	38	38	23	40.00	.....	.....	.....	.....	.....

Contractors' Self Dumping Tubs; Flaring Sides.

Capacity, Cubic Feet.	Width Over All, Inches.	Length, Inches.	Depth, Inches.	Price, Each.	Capacity, Cubic Feet.	Width Over All, Inches.	Length, Inches.	Depth, Inches.	Price, Each.
3	30	26	15	25.00	14	46	42	25	55.00
4½	32	29	18	28.00	21	48	47	28	75.00
6	34	31	19	32.00	27	53	50	31	90.00
8	36	33	20	35.00	36	65	58	33	110.00
10	41	36	21½	40.00	42	66	59	34½	120.00
12	44	40	23	45.00	.....	.....	.....	.....	.....

Contractors' Self Dumping Sewer or Trench Tubs; Narrow Style.

6	26	33	19	29.00	21	43	48	30	70.00
8	27	36	22	32.00	27	46	46	31	84.00
10	30	41	24	36.00	27	43	53	29	84.00
12	33	42	25	40.00	36	54	58	33	94.00
14	33	48	27	50.00	42	58	60	33	103.00
18	37	48	29	60.00	.....	.....	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. 1117 CLEVELAND

HOISTING TUBS.

SELF DUMPING AND RIGHTING COAL TUB.

FIG. 3170.

ROUND HOISTING TUB.

FIG. 3171.

Self Dumping and Righting Coal Tubs.

Style.	Coal Capacity, Pounds.	Capacity, Cubic Feet.	Weight, Pounds.	Price, Each.	Style.	Coal Capacity, Pounds.	Capacity, Cubic Feet.	Weight, Pounds.	Price, Each.
Horse Power	280	5	152	27.00	Steam Power	850	17	430	67.25
Horse Power	320	6	155	28.00	Steam Power	900	18	450	69.50
Horse Power	370	7	165	29.25	Steam Power	1000	20	465	72.00
Horse Power	400	8	190	31.50	Steam Power	1120	22	495	73.00
Horse Power	450	9	200	32.00	Steam Power	1200	24	515	81.00
Steam Power	500	10	225	35.75	Steam Power	1300	26	550	95.00
Steam Power	500	10	275	38.50	Steam Power	1500	30	630	105.00
Steam Power	560	11	295	40.00	Steam Power	1750	35	750	112.00
Steam Power	600	12	320	48.00	Steam Power	2000	40	810	114.00
Steam Power	600	12	375	53.00	Steam Power	2240	44	850	121.00
Steam Power	650	13	380	54.00	Steam Power	2500	50	900	145.00
Steam Power	700	14	385	57.50	Steam Power	3000	60	1000	170.00
Steam Power	750	15	400	61.00	Steam Power	3360	67	1100	180.00
Steam Power	800	16	428	65.00	.....	.....	.....	.....	.....

Other dimensions on application.

Round Hoisting Tub.

Capacity, Pounds.	Capacity, Cubic Feet.	Width Over All, Inches.	Height Over All, Inches.	Depth, Inches.	Weight, Pounds.	Price, Each,
300	6	31	37	21	150	20.00
400	8	34½	41	22	175	25.00
550	11	39	44	22	220	30.00
700	14	44	49	25	285	35.00
850	17	46½	51	26½	320	40.00
1050	21	48	56	30½	416	45.00
1350	27	50½	60	33½	500	55.00
2100	42	58½	71	40	750	75.00

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ORANGE PEEL AND CLAM SHELL BUCKETS.

Orange Peel Buckets for Hard and Deep Dredging, Excavating, Digging Ores, Phosphates, Coal, Etc.

Style.	Capacity, Cubic Feet. and Yards.	DIMENSIONS. BUCKETS, OPEN. Diameter. Feet.	Inches.	Height. Feet.	Inches.	Weight, Pounds.	Price. Each.
M.A	½ ft	2	2	2	8	125	150.00
M.B	2½ ft	3	2	4	0	400	250.00
M.C	5 ft	4	0	5	0	900	400.00
M.D	7 ft	4	4	5	3	1000	475.00
M.E	9 ft	4	8	5	6	1100	550.00
M.H	12 ft	5	1	6	6	2000	700.00
M.J	15 ft	5	6	6	9	2200	750.00
M.K	21 ft	6	4	8	0	3300	900.00
M.L	1 yds	6	10	8	6	3500	1000.00
M.N	1¼ yds	7	2	8	9	4000	1150.00
M.O	1½ yds	8	0	10	0	6300	1300.00
M.OS	1½ yds	7	8	9	6	5200	1250.00
M.P	2 yds	8	8	10	6	7000	1550.00
M.R	2½ yds	9	4	11	0	8000	1800.00
M.SS	3 yds	9	8	11	6	10000	2100.00
M.U	4 yds	10	8	12	9	16000	3200.00
M.X	5 yds	11	4	13	3	18000	3600.00
M.Y	6 yds	12	6	14	6	20000	4000.00
M.Z2	8 yds	13	3	15	6	24000	4800.00
M.Z4	10 yds	14	0	16	6	28000	5600.00

Clam Shell Buckets for Dirt, Sand, Gravel. Crushed Stone, and Coal Handling.

Style.	Capacity, Cubic Yards.	DIMENSIONS. BUCKETS, OPEN. Spread. Feet.	Inches.	Height. Feet.	Inches.	Weight, Pounds.	Price, Each.
Class A	½	5	4	5	6	2000	550.00
Class A	¾	6	6	6	6	2500	650.00
Class A	1	7	0	7	2	3000	750.00
Class A	1¼	8	0	8	0	3200	800.00
Class A	1½	8	0	8	0	3400	850.00
Class A	1⅝	8	0	8	0	3600	900.00
Class A	2	8	0	8	0	4600	1150.00
Class A	2	9	0	9	0	4800	1200.00
Class A	2½	9	0	9	0	5500	1350.00
Class A	3	9	0	9	0	6500	1600.00
Class A	4	10	0	10	0	8000	2000.00
Class A	5	10	0	10	0	9000	2250.00
Class B	½	5	4	5	6	1800	500.00
Class B	¾	6	6	6	6	2250	550.00
Class B	1	7	0	7	2	2750	625.00
Class B	1¼	8	0	8	0	2900	650.00
Class B	1½	8	0	8	0	3100	700.00
Class B	1⅝	8	0	8	0	3300	750.00
Class B	2	8	0	8	0	4300	1000.00
Class B	2	9	0	9	0	4500	1050.00
Class B	2½	9	0	9	0	5000	1150.00
Class B	3	9	0	9	0	6000	1350.00
Class B	4	10	0	10	0	7500	1700.00
Class B	5	10	0	10	0	8500	1950.00

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THE W. M. PATTISON SUPPLY CO. 1119 CLEVELAND

MINING BUCKETS, ETC.

FIG. 3172.

FIG. 3173.

Mining Buckets.

Capacity, Pounds.	Capacity, Cubic Feet.	Diameter, Inches.	Depth, Inches.	Price, Each.	Capacity, Pounds.	Capacity, Cubic Feet.	Diameter, Inches.	Depth, Inches.	Price, Each.
300	6	22	28	17.50	800	16	32	35	37.00
400	8	25	30	22.00	1000	20	34	40	45.00
500	10	26	32	27.00	1200	24	35	43	47.00
600	12	28½	33	29.00	1500	30	37	48	53.00
700	14	30	35	32.00	.....	.....	.....	.....	.....

MANHOLE STEPS.

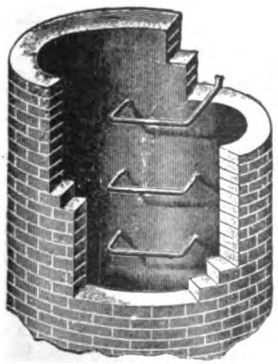

FIG. 3174.

BRICK BASKET.

FIG. 3175.

BRICK BASKET.

FIG. 3176.

Manhole Steps and Brick Baskets.

Price, Manhole Steps, standard size, ⅝ inch	each	.30
Price, Brick Baskets, Fig. 3175	each	2.50
Price, Brick Baskets, Fig. 3176	each	3.00

☞ All sizes of Manhole Steps made to order.

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PLANK CAPS, LEVERS AND TRENCHING BRACES.

PLANK CAPS. PULLER DOG.

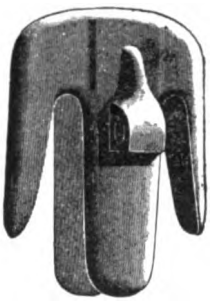

FIG. 3177.

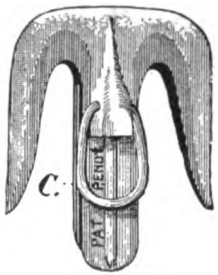

FIG. 3178.

FIG. 3179.

PLANK LEVER.

FIG. 3180.

Plank Caps, Puller Dogs and Plank Levers.

Price, Acme Steel Plank Caps	each	4.25
Price, Steel Plank Caps	each	4.50
Price, Puller Dogs	each	5.00
Price, Plank Levers	each	5.00

TRENCHING BRACES.

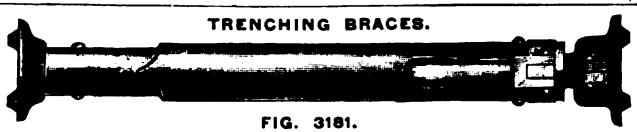

FIG. 3181.

Single Strength Trenching Braces, 1⅜ Inch Steel Shaft, 1½ inch Tubing.

Length Closed	inches	16	18	24	30	36
Extension	inches	8	10	10	12	12
Price	per dozen	23.00	23.00	24.00	26.00	28.00

Double Strength Trenching Braces, 1⅝ Inch Steel Shaft, 2 inch Tubing.

Length Closed	inches	24	30	36	48	60	72
Extension	inches	12	12	12	15	15	15
Price	per dozen	24.00	26.00	30.00	36.00	38.00	40.00

EXTENSION SCREWS FOR TIMBER BRACE.

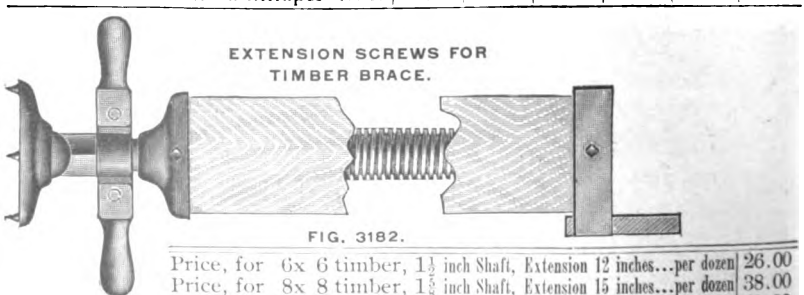

FIG. 3182.

Price, for 6x 6 timber, 1¼ inch Shaft, Extension 12 inches	per dozen	26.00
Price, for 8x 8 timber, 1½ inch Shaft, Extension 15 inches	per dozen	38.00
Price, for 10x10 timber, 1¾ inch Shaft, Extension 16 inches	per dozen	40.00

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DERRICKS.

GUY DERRICK FOR STEAM POWER.

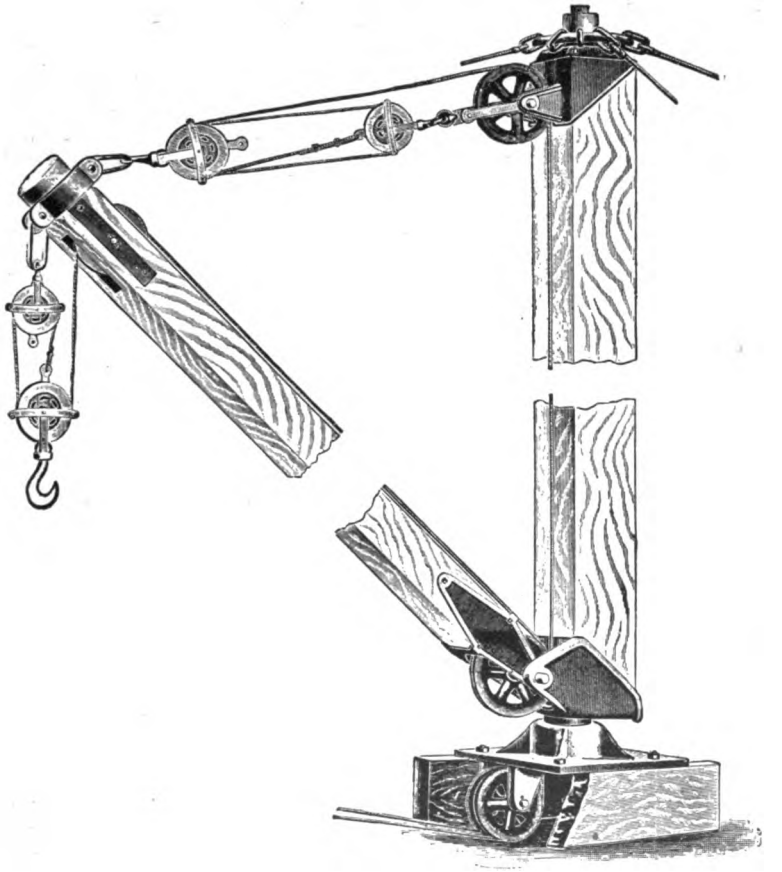

FIG. 3183.

Size of Mast.....inches	8	10	12	14	16
Price of Irons Furnished with Derrick.....	Each	Each	Each	Each	Each
1 Mast and Boom Bottom with Double Step..	23.00	33.00	42.00	56.00	85.00
1 Mast Top.....	16.00	23.00	30.00	35.00	35.00
1 Steel Guy Cap.....	9.00	12.00	13.50	15.00	25.00
1 Boom Point Band.....	5.00	6.00	7.00	8.00	9.00
1 Self Lubricating Sheave.....	2.00	2.20	2.60	3.00	3.50
1 Steel Pin and Keys.....	.45	.50	.60	.65	.70
2 Boom Sheave Plates.....	.75	.75	1.00	1.00	1.00
Total.....	56.20	77.45	96.70	118.65	159.20

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DERRICKS.

GUY DERRICK FOR STEAM POWER.

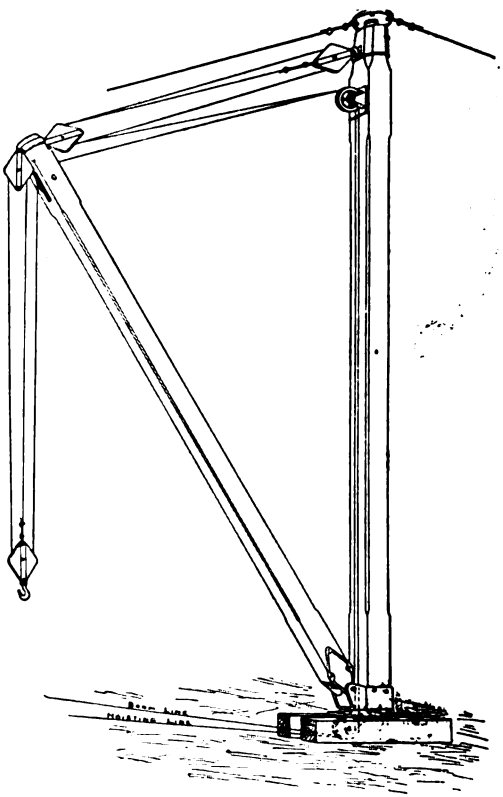

FIG. 3184.

Size of Mast.....inches	10	12	14	16
Price of Irons Furnished with Derrick.....	Each	Each	Each	Each
1 Mast and Boom Bottom with Double Step.....	33.00	40.00	50.00	70.00
1 Mast Top.....	16.50	22.00	28.50	28.50
1 Mast Bracket with Double Sheave.....	8.25	10.00	13.75	16.00
1 Steel Guy Cap.....	12.00	13.50	15.00	25.00
1 Boom Point Band.....	6.00	7.00	8.00	9.00
1 Self Lubricating Sheave.....	2.20	2.60	3.00	3.50
1 Steel Pin.....	.50	.60	.65	.70
Total.....	78.45	95.70	118.90	152.70

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THE W. M. PATTISON SUPPLY CO. 1123 CLEVELAND

STIFF LEG DERRICK FOR HAND POWER.

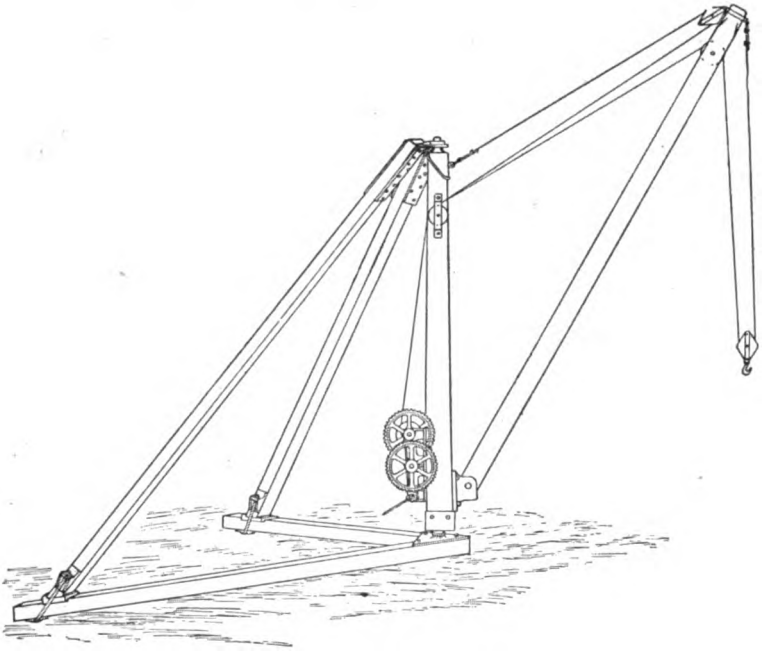

FIG. 3185.

Size of Mast.....inches	8	10	12	Heavy Pattern 12
Price of Irons Furnished with Derrick	Each	Each	Each	Each
1 Mast Bottom and Plain Step.....	9.00	11.00	15.00	20.00
1 Mast Top.....	8.60	11.50	14.00	14.00
1 Boom Seat.....	5.25	8.00	11.50	.....
1 Boom Point Band.....	5.00	6.00	7.00	.....
2 Side Brackets and Sheaves.....	6.00	7.00	8.00	.....
2 Top Stiff Leg Irons.....	22.00	28.00	40.00	.....
2 Lower Stiff Leg Irons.....	9.00	13.00	20.00	.....
1 Self Lubricating Sheave.....	2.00	2.20	2.60	.....
1 Steel Pin and Keys.....	.45	.50	.60	.....
Total.....	67.30	87.20	118.70	34.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1124

STIFF LEG DERRICK FOR STEAM POWER.

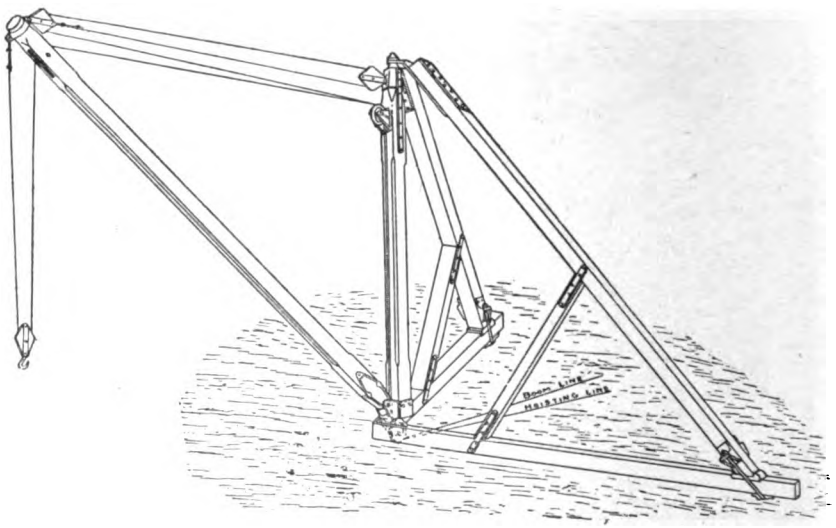

FIG. 3186.

Size of Mast.....inches	10	12	14	16
Price of Irons Furnished with Derrick.....	Each	Each	Each	Each
1 Mast and Boom Bottom with Double Step.....	33.00	40.00	50.00	70.00
1 Mast Top.....	21.50	27.00	28.50	28.50
1 Mast Bracket and Sheaves.....	8.25	10.00	13.75	16.00
1 Boom Point Band.....	6.00	7.00	8.00	9.00
2 Top Stiff Leg Irons.....	28.00	40.00	54.00	54.00
2 Lower Stiff Leg Irons.....	13.00	20.00	25.00	25.00
1 Self Lubricating Sheave.....	2.20	2.60	3.00	3.50
1 Steel Pin and Keys.....	.50	.60	.65	.70
Total.....	112.45	147.20	182.90	206.70

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THE W. M. PATTISON SUPPLY CO. 1125 CLEVELAND

CRABS AND WINCHES.

CRAB.

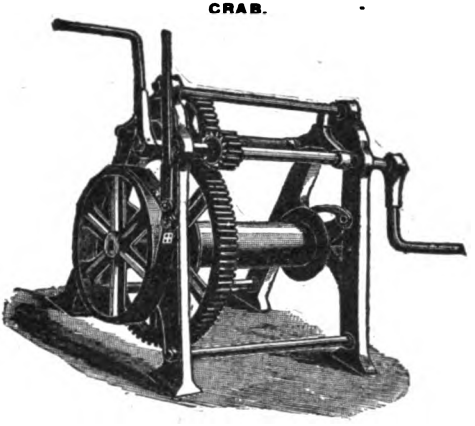

FIG. 3187.

Single Purchase Crabs.				Double Purchase Crabs.			
Number.	Capacity, Tons.	Price, Without Brake, Each.	Price, With Brake, Each.	Number.	Capacity, Tons.	Price, Without Brake, Each.	Price, With Brake, Each.
1	2	22.50	27.00	10	4	35.00	40.00
2	3	25.00	30.00	11	5	40.00	46.00
3	4	29.00	35.00	12	6	50.00	59.00
4	5	35.00	40.00	13	9	60.00	69.00
5	6	44.00	52.00	14	12	73.00	82.00
6	9	53.00	62.00	15	15	94.00	104.00
.....	.....	.....	.....	16	18	118.00	132.00
.....	.....	.....	.....	17	24	160.00	180.00

WAGON WINCH.

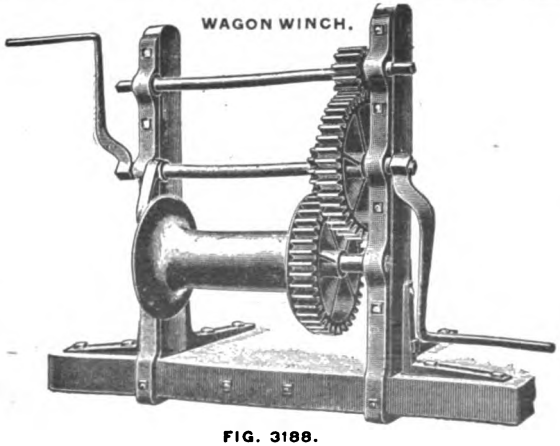

FIG. 3188.

Price.....each | 65.00

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THE W. M. PATTISON SUPPLY CO. 1126 CLEVELAND

HAND POWERS.

SINGLE DRUM, SINGLE PURCHASE, WITH LAZY SHAFT.

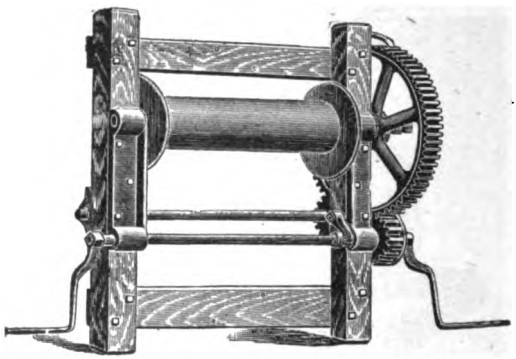

FIG. 3189.

Single Drum, Single Purchase.

Diameter of Drum, Inches.	Length of Drum, Inches.	Weight Hoisted, Single Line. Pounds.	Price. Each.
6	20	2000	24.00

Single Drum, Single Purchase with Lazy Shaft.

Diameter of Drum, Inches.	Length of Drum, Inches.	Weight Hoisted, Single Line, Pounds.	Price, Each.
6	20	2000	30.00

SINGLE DRUM, DOUBLE PURCHASE.

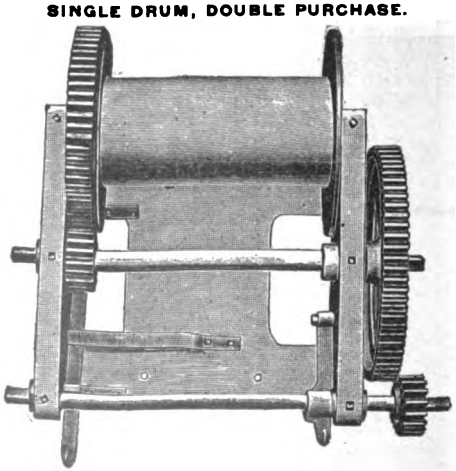

FIG. 3190.

Single Drum, Double Purchase.

Diameter of Drum, Inches.	Length of Drum, Inches.	Load for Two Men, Single Line.	Price, Each.
6	19	4000	50.00
9	19	3500	50.00

Double Drum, Double Purchase.

Diameter of Drum, Inches.	Length of Drum, Inches.	Load for Two Men, Single Line.	Price, Each.
9	10 and 12	3500	60.00
.....	.....	.....	.....

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HOISTING ENGINES.

THE W. M. PATTISON SUPPLY CO. 1127 CLEVELAND

STANDARD; DOUBLE CYLINDER, DOUBLE FRICTION DRUM, DOUBLE WINCH HOISTING ENGINE, WITH RATCHETS AND PAWLS, BOILER AND FIXTURES.

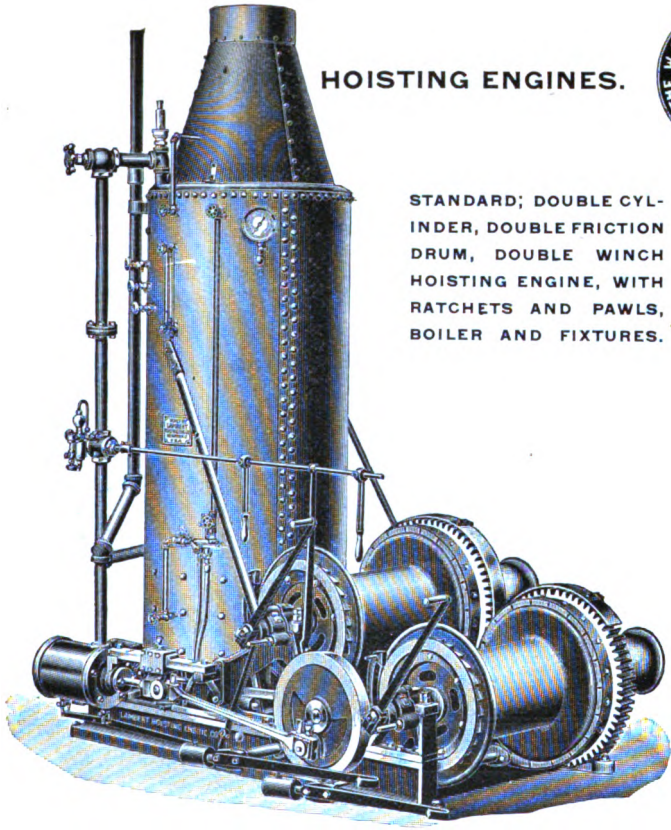

FIG. 3191.

Number.	Usually Rated Horse Power.	CYLINDERS.		DRUMS.		Weight Hoisted, Single Line, Usual Speed, Pounds.	Suitable Weight for Pile Driving Hammer, for Quick Work Lbs.	BOILER.			Weight, Complete, Pounds.
		Diameter, Inches.	Stroke, Inches.	Diameter, Inches.	Length Between Flanges, Inches.			Diameter of Shell, Inches.	Height of Shell, Inches.	Number of 2 Inch Tubes.	
35	6	5	6	10	20	1500	1000	30	78	50	4900
36	10	5½	8	12	22	2800	1800	32	80	55	6500
37	14	6½	8	14	22	3500	2000	34	84	60	7000
38	18	6½	10	14	24	4500	2800	36	84	65	8200
38½	20	7	10	14	24	5000	3000	38	90	77	9000
39	25	7½	10	14	28	6500	4000	40	90	85	10000
41	30	8½	10	14	28	8000	6000	42	96	90	11500
42	40	8½	12	16	32	10000	8000	48	102	142	20500
43	45	9½	12	16	32	11000	8000	48	102	142	21000
44	50	10	12	16	32	12000	10000	50	102	155	22000
45	60	10½	14	18	34	16000	12000	52	108	160	24000
46	85	12½	16	20	42	22000	18000	60	120	200	29000

These Engines are adapted for Quarries, Bridge Building, Pile Driving, Dock Building, Contractors and General Hoisting: Prices on application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1128

STANDARD; DOUBLE CYLINDER, DOUBLE FRICTION DRUM, DOUBLE WINCH HOISTING ENGINE, WITH OR WITHOUT FOOT BRAKES; WITHOUT BOILER.

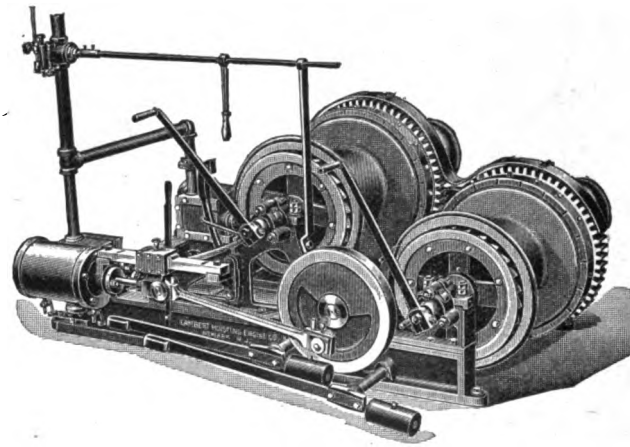

FIG. 3192.

Number.	Usually Rated Horse Power.	CYLINDERS.		DRUMS.		Weight Hoisted, Single Line, Usual Speed, Pounds.	Suitable Weight for Pile Driving Hammer for Quick Work, Pounds.	Weight, Pounds.
		Diameter, Inches.	Stroke, Inches.	Diameter, Inches.	Length Between Flanges, Inches.			
47	10	5½	8	12	16	2500	1600	4000
48	14	6¼	8	12	16	3000	2000	4200
49	18	6½	10	14	18	4000	2400	5200
50	20	7	10	14	18	5000	3000	5500
51	25	7½	10	14	24	6500	4000	6000
52	30	8½	10	14	24	8000	5000	6650
53	40	8½	12	16	30	10000	8000	10500
54	45	9½	12	16	30	11000	8500	11000
55	50	10	12	16	30	12000	9000	13000
56	60	10½	14	16	32	16000	10000	18000

These Engines are adapted for Quarries, Bridge Building, Builders, Contractors, Lighters, Railroads, etc. Prices on application.

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THE W. M. PATTISON SUPPLY CO. 1129 CLEVELAND

DOUBLE CYLINDER, DOUBLE FRICTION DRUM HOISTING ENGINE, WITH FOUR INDEPENDENT CLUTCH WINCHES, BOILER AND FIXTURES.

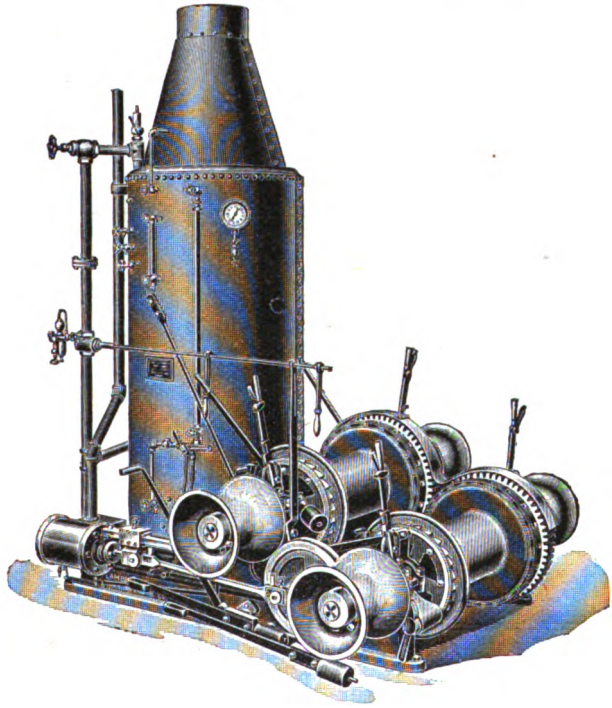

FIG. 3193.

Number.	Usually Rated. Horse Power.	CYLINDERS.		DRUMS.		Weight Hoisted, Single Line, Pounds.	BOILER.			Weight Complete, Pounds.
		Diameter, Inches.	Stroke. Inches.	Diameter, Inches.	Length Between Flanges, Inches.		Diameter. of Shell, Inches.	Height of Shell. Inches.	Number of 2 Inch Tubes.	
133	20	7	10	14	26	5000	38	90	77	11000
134	25	7½	10	14	27	7000	40	90	85	11600
135	30	8½	10	14	27	8300	42	96	90	14000
136	40	8½	12	16	30	10000	48	102	142	22500
137	45	9½	12	16	30	11500	48	102	142	23500
138	50	10	12	16	30	12000	50	102	155	24500
139	60	10½	14	16	32	15000	52	108	160	27500

The above Engines are adapted for Bridge Building, Structural Iron Work and Erection of all classes: Prices on application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1130

DOUBLE CYLINDER, DOUBLE FRICTION DRUM HOISTING ENGINE WITH FOUR INDEPENDENT CLUTCH WINCHES; WITHOUT BOILER.

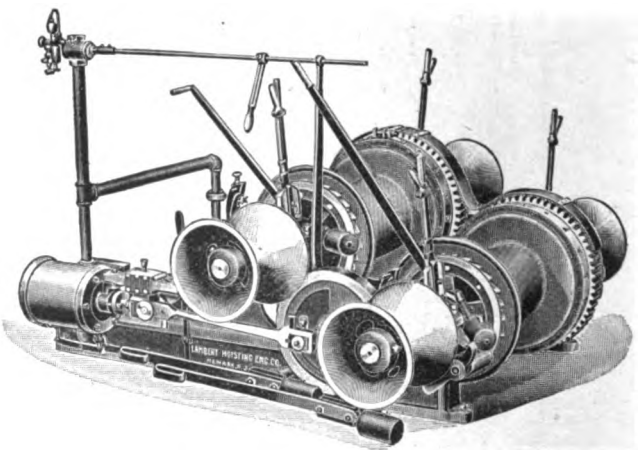

FIG. 3194.

Number.	Usually Rated Horse Power.	CYLINDERS.		DRUMS.		Weight Hoisted, Single Line, Usual Speed, Pounds.	Weight, Pounds.
		Diameter, Inches.	Stroke, Inches.	Diameter, Inches.	Length Between Flanges, Inches.		
133½	20	7	10	14	18	5000	7200
134½	25	7½	10	14	24	7000	8100
135½	30	8½	10	14	24	8300	8550
136½	40	8½	12	16	29	10000	12500
137½	45	9½	12	16	29	11500	12000
138½	50	10	12	16	29	12000	14200
139½	60	10½	14	16	32	15000	19000

The above engines are adapted for Bridge Building, Structural Iron Work and Erecting of all classes: Prices on application.

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THE W. M. PATTISON SUPPLY CO. 1131 CLEVELAND

WITH PATENT BOOM SWINGING ATTACHMENT.

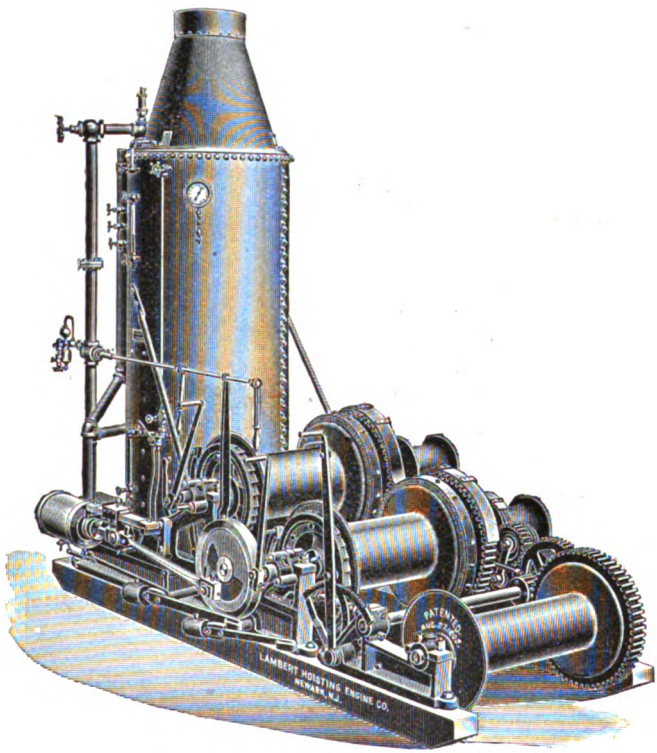

FIG. 3195.

The above illustration represents one of a standard derrick engine, which are built in twelve sizes, from 6 to 85 horse power. It is equipped with Patent Swinging Gear or reversing drum and is designed to swing the derrick at a given speed, regardless of how fast the drums which raise and lower the boom and fall block may be running. It may be reversed without any danger of breaking. It runs at the will of the operator only. It is detachable and can be fitted to any make of engine.

For specifications of these Engines with or without Boiler, see pages 1127 and 1128.

Prices on application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

HOISTING AND CABLEWAY ENGINES.

COMBINATION DERRICK AND CABLEWAY ENGINE.

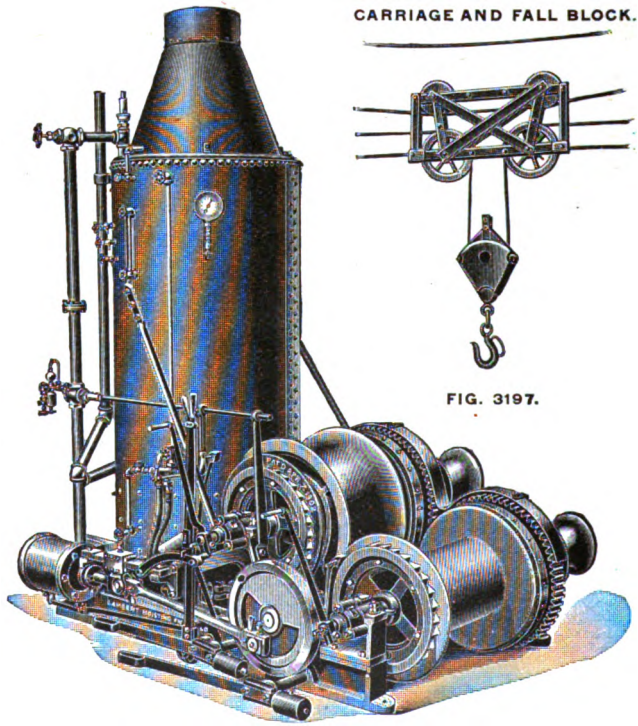

FIG. 3197.

FIG. 3196.

The above illustration shows a patent combination derrick and cableway engine. In operating the cableway with this engine the operator is able to hoist and convey simultaneously. This is something new in the cableway line.

It is a well-known fact that a contractor's plant depreciates more in storage than it does when in operation. This engine, when not in operation running a cableway, can be changed in a few minutes to a standard derrick engine by taking the jacket off the top drum, which is used for traction rope of cableway, and leaving the standard drum. To this engine can be attached the Patent Carriage and Fall Block.

Fig. 3197 shows the carriage and fall block and the way the rope is rove in the cableway, which hoists and conveys simultaneously.

It is a well-known fact that a given number of laborers can handle two-thirds more material into a skip 18 inches high than they will into a car four feet high. There are four reasons for this. First: The skip can always be moved close to the material to be handled. Second: The difference in height of the receptacles to be filled. Third: They are unable to handle as large pieces into the cars. Fourth: The pieces which are too large have to be sledged small enough for them to lift in. This, of course, shows a great advantage in favor of the cableway.

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THE W. M. PATTISON SUPPLY CO. 1133 CLEVELAND

STANDARD DOUBLE DRUM ELECTRIC HOISTS WITH RATCHET, PAWLS AND FOOT BRAKES.

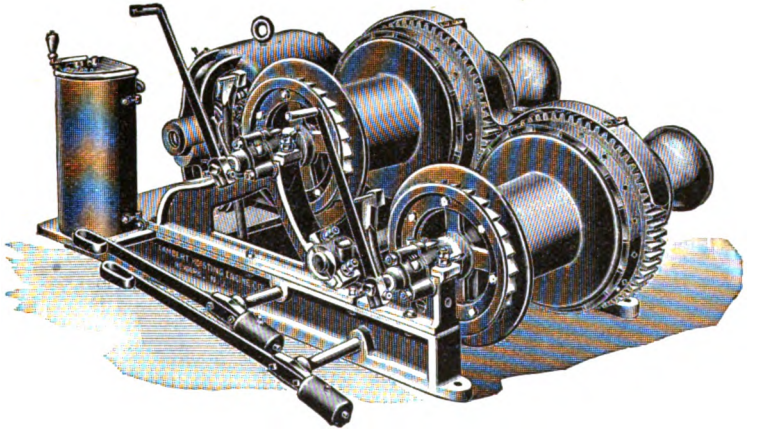

FIG. 3198.

Horse Power.	DRUMS.		Weight Hoisted on Single Line, Pounds.	WEIGHT, POUNDS.	
	Diameter, Inches.	Length Between Flanges, Inches.		Single Drum.	Double Drum.
5	10	16	800	2700	3100
7½	12	16	1000	3300	3800
10	12	16	2000	3600	4200
15	14	16	2500	4500	5500
20	14	18	3500	5500	6500
25	14	24	4500	6500	7500
30	14	24	5000	6800	7800
35	16	28	6000	7300	8500
40	16	28	7000	9000	10500
50	16	34	8500	11000	13000
60	16	34	10000	15000	18000

Prices on application.

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THE W. M. PATTISON SUPPLY CO. 1134 CLEVELAND

PILE DRIVERS.

TOWNSHIP.

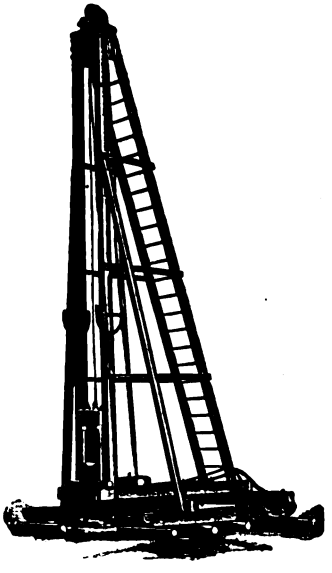

FIG. 3199.

SWIVEL.

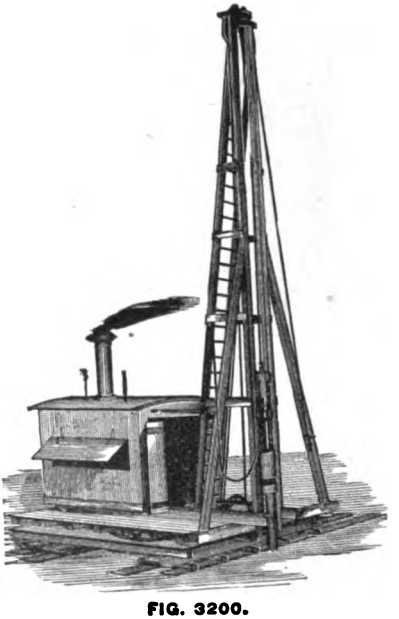

FIG. 3200.

Township Pile Drivers are furnished in capacities from 500 pound hammer up to 1200 pounds.

Drop Hammer Outfits for contractors range from 1500 pounds weight upward. We furnish them as heavy as 5200 pounds. We furnish the wood work when desired. When the iron work only is furnished, the working drawings for the wood work are included.

Sizes of Manila Lines for Drop Hammers.

Hammers.....pounds	500	800	1000	1200	1500	1800	2000	2500	3000
Hammer Lines.....inches	$\frac{5}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{4}$	$1\frac{3}{4}$	2
Pile Lines.....inches	$\frac{3}{4}$	$\frac{7}{8}$	1	1	$1\frac{1}{8}$	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$

Sizes of Manila Lines for Steam Hammers.

Size.....Number	1	2	3	4
Hammer Line.....inches	2	$1\frac{3}{4}$	$1\frac{1}{2}$	1
Pile Lines.....inches	$1\frac{1}{2}$	$1\frac{1}{4}$	1	$\frac{3}{4}$

For prices, etc., of Pile Drivers, see page 1135.

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THE W. M. PATTISON SUPPLY CO. 1135 CLEVELAND

Township Pile Drivers.

Size of Driver, Pounds.	DIMENSIONS.			PRICES.								
	Distance Between Jaw, Inches.	Width of Jaws, Inches.	Height of Leaders, Feet.	Hammer, with Steel Die Fitted In.	Forged Nippers.	Two Top Sheaves, Shafts Boxes and Bolts.	Channel Iron Liners, Including Bolts and Washers.	One Pair No. 1 Toggles, with Bolts.	One Pair No. 2 Toggles, with Bolts.	Total Price of Iron Work.	Wood Work Complete.	Total Cost of Pile Driver Without Lines and Blocks.
500	13	4¼	26	15.00	10.50	4.00	13.75	3.50	1.75	48.50	65.00	113.50
600	13	4½	26	17.75	10.50	4.00	13.75	3.50	1.75	51.25	65.00	116.25
700	14	4¼	26	19.75	10.50	4.00	13.75	3.50	1.75	53.25	80.00	133.25
800	14	4½	26	22.25	10.50	4.00	13.75	3.50	1.75	55.75	80.00	135.75
1000	16	5¼	26	26.50	14.00	6.00	16.00	5.75	2.25	70.50	85.00	155.50
1200	18	6¼	30	31.50	14.00	6.00	22.50	5.75	2.25	82.00	100.00	182.00

Contractors' Pile Drivers.

Size of Driver, Pounds.	DIMENSIONS.				PRICES.								
	Height of Leaders, Feet.	Length of Channel Irons, Feet.	Distance Between Jaws, Inches.	Width of Jaws, Inches.	Hammer, with Steel Die Fitted In.	Top Sheaves, Shafts, Boxes and Bolts, Solid Boxes.	Bottom Sheave, Shaft, Boxes and Bolts.	Channel Iron Liners, Including Bolts and Washers.	One Pair No. 1 Toggles, with Lag Screws.	One Pair No. 2 Toggles, with Lag Screws.	Total Price of Iron Work.	Wood Work, Complete.	Total Cost of Complete Pile Driver.
1500	30	27	18	6¼	36.25	6.00	7.25	21.75	8.00	3.00	82.25	100.00	182.25
1800	30	27	18	6¼	43.00	6.00	7.25	21.75	8.00	3.00	89.00	100.00	189.00
2000	35	32	19	7¼	47.50	9.00	9.50	30.75	8.00	3.00	107.75	125.00	232.75
2500	40	37	19	7¼	58.75	9.00	9.50	35.50	8.00	3.00	123.75	170.00	293.75
3000	50	47	20	8¼	63.00	9.00	9.50	53.50	9.25	3.60	147.85	275.00	422.85

On outfits above 3000 pounds, Prices on application.
When a Pile Cap is used, Number 1 or 2 Toggles are not required.
Prices do not include Lines and Blocks.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1136

PILE DRIVING HAMMERS.

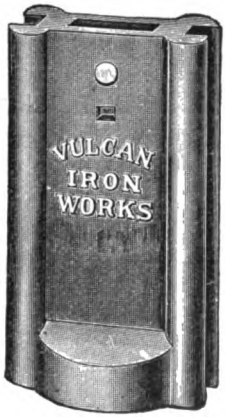

FIG. 3201.

Drop Hammers.

Weight, Pounds.	Distance Between Jaws, Inches.	Width of Jaw, Channel Iron Liners, Inches.	Width of Jaw, With Strap Liners, Inches.
500 and 600	13	4¼	4½
700 and 800	14	4¼	4½
1000	16	5¼	5½
1200 to 1800	18	6¼	6½
2000 to 2500	19	7¼	7½
Above 2500	20	8¼	8½

Prices on application.

FIG. 3202.

Steam Pile Driving Hammers.

Number.	Weight, Pounds.	Length, Feet.	Diameter of Cylinder, Inches.	Normal Stroke, Inches.	Weight of Striking Parts, Pounds.	Distance Between Jaws, Inches.	Width of Jaws, Inches.
1	9850	12	13½	42	5000	20	8¼
2	6500	10	10½	36	3000	19	7¼
3	3800	8	8	30	1800	18	6¼
4	1350	7	4	24	550	14	4¼

Prices on application.

Horse Power of Boiler Required to Operate Steam Hammers.

Number of Hammer	1	2	3	4
Horse Power of Boiler	40	25	18	8

Channel Iron Liners and Bolts.

Size..... inches	4	5	6	7	8
Price.....per running foot	.28	.33	.40	.48	.57

Leaders double the above list.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1137

NIPPERS, TRIPS AND SHEAVES FOR PILE DRIVERS.

Nippers.

WITHOUT BLOCK.

FIG. 3203.

WITH BLOCK.

FIG. 3204.

ADJUSTABLE TRIP.

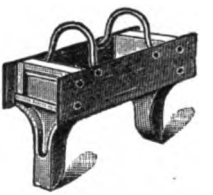

FIG. 3205.

Nippers.

Number	1	2	3	4
For Hammer.....pounds	over 2500	1500 to 2500	900 to 1200	800 and under
Price.....each	23.50	18.00	14.00	10.50

Nipper Blocks.

Price.....each	3.00 to 3.50

Adjustable Trips.

Number	1	2	3
For Hammer.....pounds	over 2500	1200 to 2000	under 1200
Price.....each	16.00	11.00	8.75

SHEAVES.

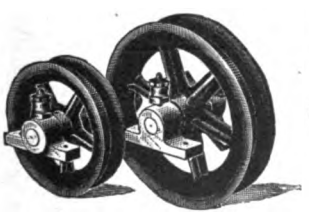

FIG. 3206.

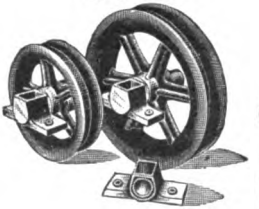

FIG. 3207.

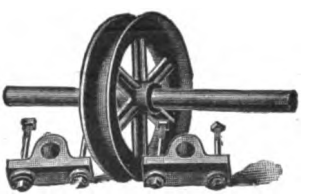

FIG. 3208.

Weight of Drop Hammer, Pounds.	Bottom Sheave, Shaft, Boxes and Bolts Without Housing.	Top Sheaves, Shafts, Boxes and Bolts, Per Set. Solid Boxes.	Top Sheaves, Shafts, Boxes and Bolts, Per Set. Babbitted Boxes.
500 to 1000	5.00	4.00	4.75
1000 to 1800	7.25	6.00	7.00
over 1800	9.50	9.00	10.00

Dimensions of Sheaves and Shafts.

	BOTTOM SHEAVES AND SHAFTS.			TOP SHEAVES AND SHAFTS. FOR HOISTING LINE.			FOR PILE LINE.		
Hammer, Pounds.	Line; Up to Inches.	Sheave, Inches.	Shaft, Inches.	Line; Up to, Inches.	Sheave, Inches.	Shaft, Inches.	Line; Up to. Inches.	Sheave, Inches.	Shaft, Inches.
500 to 1000	1½	12	2 3/16	1¼	9	1 1/8	1	6	1 1/8
1200 to 1800	1¾	16	2 7/16	1¾	12	1 5/16	1¼	9	1 1/8
2000 and over	2	20	2 5/8	2	16	1 5/16	1½	12	1 5/16

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TOGGLE IRONS, BANDS, ETC., FOR PILE DRIVERS.

TOGGLE IRONS.

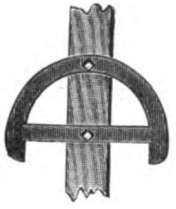

FIG. 3209.
No. 1.

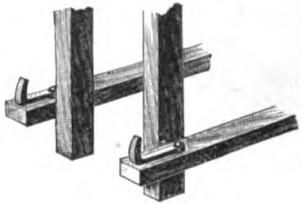

FIG. 3210.
No. 2.

PILE BANDS.

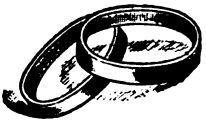

FIG. 3211.

Toggle Irons.

Drop Hammer.....pounds	500 to 800	Over 8 to 1500	Over 1500 to 2500	Over 2500
Opening, No. 1 Toggles...inches	13	18	22	26
Center of Leaders to Hook No. 2.....inches	6½	9	11	13
Price, No. 1, with Bolts.....per pair	3.50	5.75	8.00	9.25
Price, No. 2, with Bolts.....per pair	1.75	2.25	3.00	3.60

Norway Iron Pile Bands.

Diameter.....inches	11	12	13	14	15	16
Price, ¾ x 3 inches.....each	2.00	2.25	2.50	2.65	2.85	3.05
Price, 1 x 2½ inches.....each	2.10	2.35	2.65	2.75	3.00	3.25
Price, 1 x 3 inches.....each	2.25	2.50	2.75	3.00	3.25	3.50

PILE POINTS OR SHOES.

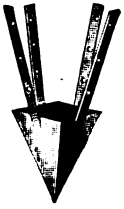

FIG. 3212.

FIG. 3213.

FIG. 3214.

PILE HEAD COVER.

FIG. 3215.

Pile Points or Shoes.

Size.....inches	4 x 4	5 x 5	6 x 6	9 x 2½	9 x 3	9 x 3½	6 Round	8 Round	10 Round
Weight....pounds	15	20	35	17	25	33	35	78	150
Price.....each	.75	1.00	1.15	.85	1.00	1.25	1.15	2.25	3.50

Pile Head Covers.

Diameter.....inches	11½	13½
Price.....each	.60	.75

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THE W. M. PATTISON SUPPLY CO. 1139 CLEVELAND

DRIVING CAPS, FOLLOWERS, ETC., FOR PILE DRIVERS.

CASGRAINS' DRIVING CAP.

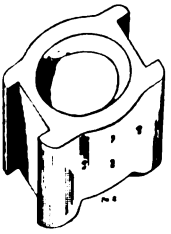

FIG. 3216.

SECTIONAL OF DRIVING CAP.

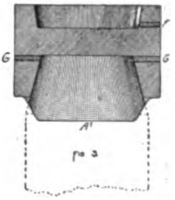

FIG. 3217.

FOLLOWER CAP.

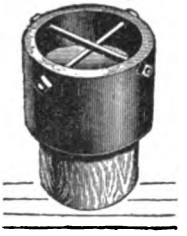

FIG. 3218.

FOLLOWER BAND.

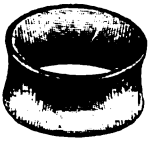

FIG. 3219.

Casgrains' Driving Caps.

Price.....each		36.00

Follower Caps.

Number	1	2
Dimensions.....inches	12 inside diameter and 12 long	14 inside diameter and 15 long
Price, Including Bolts,.....each	13.50	18.00

Follower Bands.

Price, 15 inches in diameter, 8 inches deep.....each	12.50

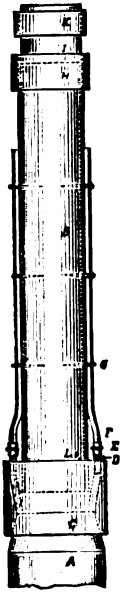

FIG. 3220.

Pipe Pile Follower for Driving Piles Below the Surface of the Ground.

It consists of a cast Iron cap "C" in which is a recess to receive the pile; and a wrought iron pipe, "B" 10 inches in diammeter, of length to suit the depth required. This pipe is cast into the follower cap. It was found that fasteniang by bolts was very insecure. The pipe is then filled by a turned oak timber, hammered in. A heavy Norway iron band, "H" is shrunk on on the upper end of the pipe, leaving a recess of about 1½ in. to receive a short block, "I" having a Norway Iron band, "K." A small hole. "L" is drilled in the bottom of the pipe to allow air to escape while the timber is being driven in. Two steam pipes run down either side to release the follower from the pile. These pipes are fitted by unions to the the nipples which are cast into the follower cap, and are held to the pipe by staples driven through the pipe into the wood.

Prices on application.

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SHEAVES, ROLLERS, ETC., FOR PILE DRIVERS.

SWIVELING SHEAVE.

PILE BAND PULLER.

FIG. 3221.

FIG. 3222.

TIMBER OR DOCK CLAMP.

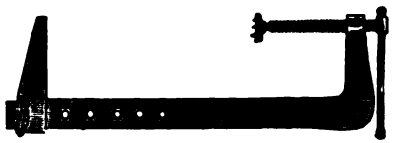

FIG. 3223.

Forged Steel Pile Band Pullers.

Price, Hook adjustable for different sizes of bands	each	5.00

Swiveling Sheaves for Wire or Manila Rope.

Price, 14 inches in the groove, 2 inch bolt	each	16.50

Timber or Dock Clamps.

Width	inches	7	7	8	9	10	12
Length	inches	36	48	48	48	48	48
Price	each	13.50	14.00	14.50	15.00	16.00	17.00

PILE CAP ROLLER.

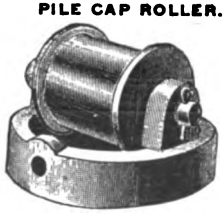

FIG. 3224.

TURNTABLE ROLLER.

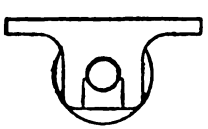

FIG. 3225.

TIMBER ROLLER.

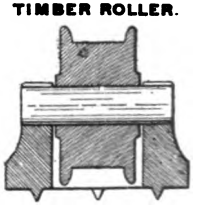

FIG. 3226.

Pile Cap, Turntable and Timber Rollers.

Price, Pile Cap Rollers, 5 inches in diameter and between flanges	each	3.50
Price, Turntable Rollers, 5 inches in diameter, 4 inch face	each	3.75
Price, Timber Rollers, 8 inches in diameter and 3½ inches between flanges	each	7.00

ROLLER SPOOL AND AXLE.

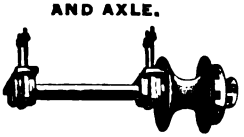

FIG. 3227.

RIGID ROLLER BEARING.

FIG. 3228.

PILE TURNBUCKLE.

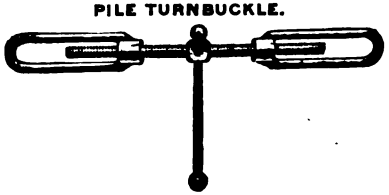

FIG. 3229.

Roller Spools and Axles; Spool to Run on 10 inch Wooden Roller.

Number		1, Square Shaft	2, Round Shaft
Price	per set of four	64.00	72.00

Rigid Roller Bearings.

Price, 10¼ inches in diameter	each	5.75

Pile Turnbuckles.

Price, 24 inch travel, 1¼ inch square threads, 3 per inch	each	16.00

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THE W. M. PATTISON SUPPLY CO. 1141 CLEVELAND

CYCLONE PROSPECTING AND DRILLING MACHINES.

NO. 2; 500 FOOT HOLLOW ROD DRILL.

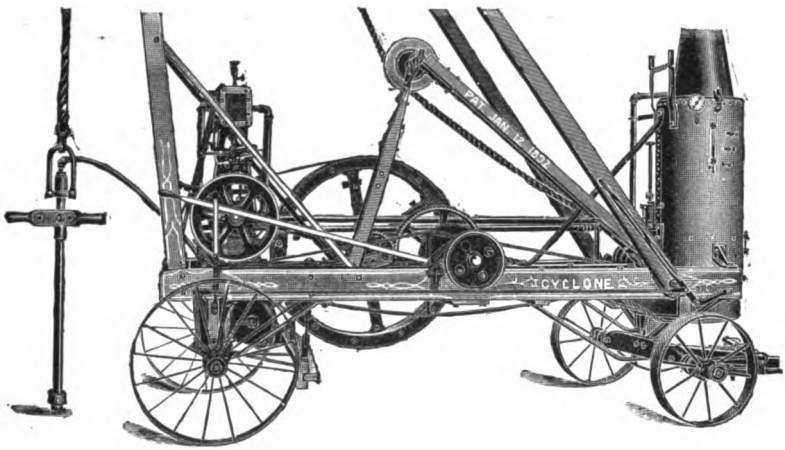

FIG. 3230.

The Cyclone Prospecting Machines are built in various sizes and styles to meet the varying conditions and stratas. They are arranged to be fitted with Hollow Rods for Coal Testing and Mineral Prospecting; also with Cable Tools for drilling wells for water, gas or oil. In writing for catalogue and prices, state your requirements as near as possible, giving maximum depth of holes, strata to be drilled, and what you wish to drill for; this will enable us to quote you prices on suitable machinery and tools for doing your work in the best possible manner. These drills are easily operated, run noiseless and are operated at a fraction of the cost of Diamond or Core Drills; they do not require an expert to get accurate tests of all material passed through; cuttings are all pumped to the surface, showing at all times just what is being drilled.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1142

MINERS' AND DRIVERS' LAMPS.

HIGHBERGER MINERS.

FIG. 3231.

HIGHBERGER DRIVERS.

FIG. 3232.

DRIVERS' REFLECTOR.

FIG. 3233.

Miners' Lamps.

Price, Common	per dozen	1.20
Price, Monongahela Valley	per dozen	1.40
Price, Frostburg	per dozen	1.40
Price, Brass Screw Top	per dozen	1.60
Price, Highberger	per dozen	1.80
Price, Chirry	per dozen	2.00
Price, Hoover	per dozen	2.00
Price, Star	per dozen	2.00
Price, Grier	per dozen	2.00
Price, Anton	per dozen	2.20
Price, Pittsburgh Seamless	per dozen	3.30
Price, Anton, Brass	per dozen	4.50

Drivers' Lamps.

Price, Frostburg	per dozen	1.70
Price, Monongahela Valley	per dozen	1.70
Price, Brass Top No. 3	per dozen	2.30
Price, Chirry No. 5	per dozen	3.30
Price, Hoover	per dozen	2.40
Price, Highberger	per dozen	2.50
Price, Star No. 5	per dozen	2.50
Price, Star No. 6	per dozen	2.80
Price, Chirry No. 6	per dozen	2.80
Price, Anton	per dozen	3.30
Price, Grier No. 1	per dozen	3.50
Price, Pittsburgh Seamless	per dozen	4.00
Price, Pittsburgh Seamless, with Reflector	per dozen	4.50
Price, Anton Brass	per dozen	5.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1143

THE DAVY OR GAUZE SAFETY LAMPS.

With and Without Improved Bonnets or Wind Shields.

NEWCASTLE DAVY.

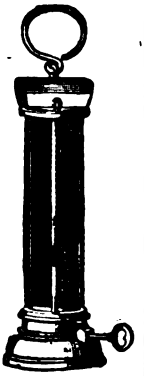

FIG. 3234.
No. 4.

UNIVERSAL CLANNY.

FIG. 3235.
No. 2.

CAMBRIAN OR BONNETED CLANNY.

FIG. 3236.
No. 24.

MUESELER.

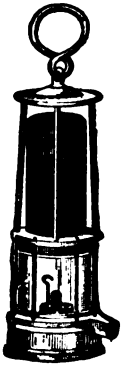

FIG. 3237.
No. 3.

MARSAUT.

FIG. 3238.
No. 22.

Figure Number.....	3234	3235	3236	3237	3238
Price.....each	2.10	2.90	3.00	3.15	3.50

THOMAS.

FIG. 3239.
No. 7.

CELYNEN MUESELER.

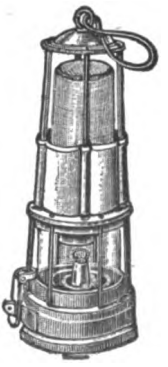

FIG. 3240.

BONNETED MUESELER.

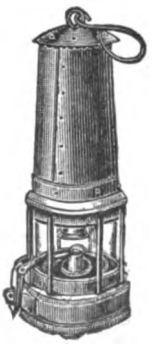

FIG. 3241.

WILLIAMSON DOUBLE SAFETY.

FIG. 3242.
No. 17.

ASHWORTH HEPPLEWHITE GRAY IMPROVED.

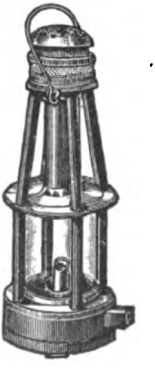

FIG. 3243.

Figure Number.....	3239	3240	3241	3242	3243
Price.....each	3.70	4.20	4.35	4.65	6.00

Prices are for Lamps with ordinary screw lock and iron gauze chimneys. Lead seal locks, 15 cents extra; Copper gauze chimneys, extra.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1144

ANEMOMETERS.

WITH ONE MINUTE SAND GLASS.

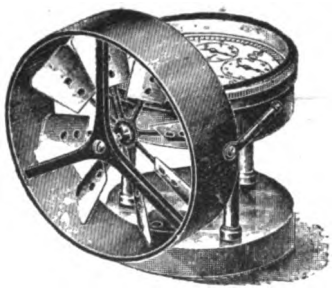

FIG. 3244.

FIG. 3245.

Diameter of Vane.....inches	2½	2½	2½	2½
Register ..... feet	1000	1000	1000	1000
Price.....each	19.50	21.75	*23.50	*25.75

*With one minute Sand Glass attached to disconnector in such a manner that it starts and stops the mechanism.

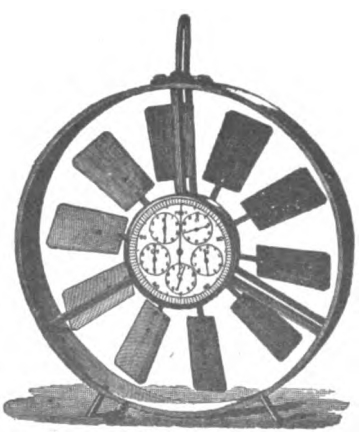

FIG. 3246.

Diameter, Inches.	Register, Feet.	Price, Each.
3	1000	20.25
4	1000	19.00
4	100000	21.00
6	1000	21.00
6	10000000	33.00

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THE W. H. PATTISON SUPPLY CO. 1145 CLEVELAND

MINE SUPPLIES.

We are prepared to furnish the following:

Sheaves, Rollers, Etc.

CURVE, OR RETURN AND TRACK SHEAVES.

ROPE LINED CURVE SHEAVES WITH STAND AND PIN.

GUIDE SHEAVES. CURVE SHEAVES, GUMWOOD ROLLERS.

CAST TURNOUTS. CAST FROGS.

Mine Car Wheels.

PLAIN. SELF OILING. LYSLE. STRAIGHT ARM. CAP OILER.

Mine Car Irons.

BUMPERS. SWITCH BRIDLES. DRAW BARS. DOOR LATCH KEEPERS.

DOOR LATCH HOOKS. DOOR LATCHES. DOOR LATCH SAFETY.

AXLE CLIPS. FRONT BELTS. BACK END BELTS.

CROSS BARS, ETC.

English Brattice Cloth.

Numbers 1, 2, 3 and 4, in rolls 50 yards long and 36, 48 and 72 inches wide. Prices on the above on application.

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THE W. M. PATTISON SUPPLY CO. 1146 CLEVELAND

MINE CARS.

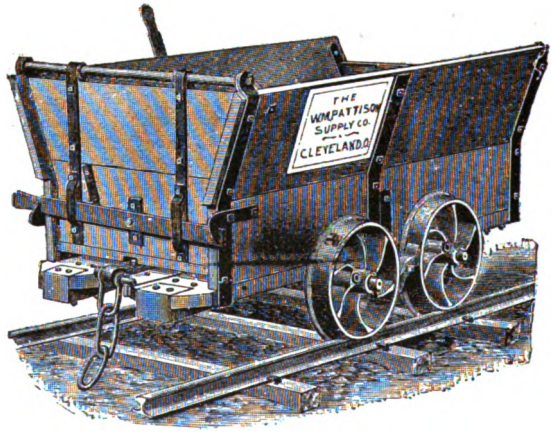

FIG. 3247.

STEEL PIT CAR.

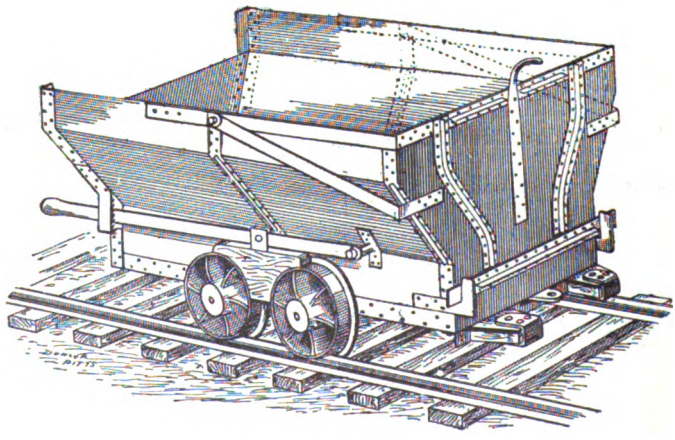

FIG. 3248.

Prices on application when accompanied by dimensions, etc.

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THE W. M. PATTISON SUPPLY CO. 1147 CLEVELAND

MINERS' BREAST AUGERS.

ONE PIECE, WITH LOOSE PLATE.

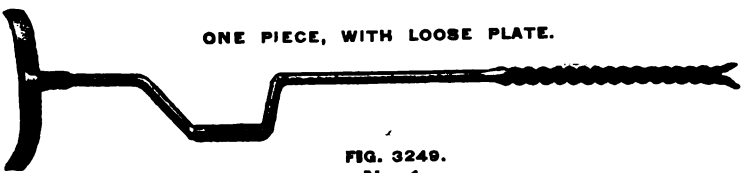

FIG. 3249.
No. 1.

DETACHABLE CRANK, SQUARE SOCKET.

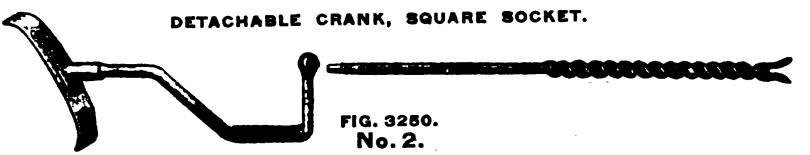

FIG. 3250.
No. 2.

SCREW SOCKET.

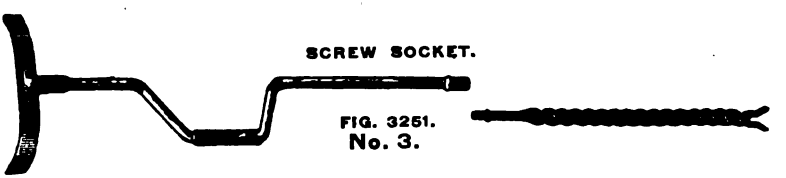

FIG. 3251.
No. 3.

Length of Twist, Feet.	Diameter of Twist, Flat or Bevel, Inches.	Price, No. 1, Per Dozen.	Price, No. 2, Per Dozen.	Price, No. 3, Per Dozen.
2	Up to 2	31.10	32.20	33.33
3	Up to 2	32.20	33.33	35.00
3½	Up to 2	.....	.....	36.00
3½ or 4	Any Diameter	34.40	.....	.....
4	Any Diameter	.....	35.60	37.33

Any Style; with 2 inch twist to bore 3 inch hole; add to list 2.00.

Repairs.

	Price, Per Dozen.
Cranks for No. 2; long, short or round plates	18.00
Cranks and Shanks for No. 3; any style plates	20.00
Shanks for Square Socket or Screw Joint with 2 feet of twist, any diameter	15.00
Shanks for Square Socket or Screw Joint with 3 feet of twist, any diameter	16.00
Shanks for Square Socket or Screw Joint with 3½ or 4 feet of twist, any diameter	18.00
Plates; long, short or round, with Socket on	10.00
Knee Plates	18.00
Heavy Malleable Sockets for Plates	6.00
Twist any diameter ..... per pound	.20

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1148

MINERS' POST DRILLS.

STEEL NOTCH WOOD POST MACHINE.

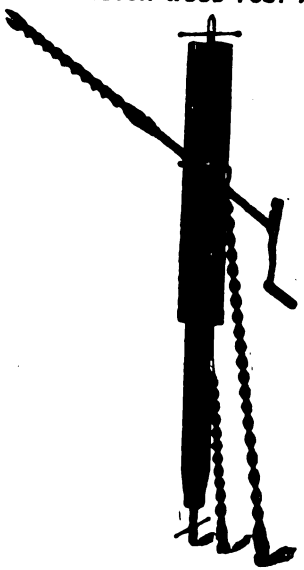

FIG. 3252.

Steel Notch Wood Post Machines, End Gear.

Price, with 2 and 4 foot Augers	each	7.50
Price, with 2 and 4 foot Augers and 2 foot extension to bore 6 foot hole	each	8.25
Price, with 2, 4 and 6 foot Augers, either A or B	each	9.00

In ordering machines with 2 and 4 foot Augers and Extension, to bore 6 foot hole always order the A.

Repairs.

A. MACHINE.			B. MACHINE.		
Price, 2 foot Extension	each	1.15	Price, 2 foot Auger	each	.90
Price, 2 foot Auger	each	1.00	Price, 4 foot Auger	each	1.80
Price, 4 foot Auger	each	2.00	Price, 6 foot Auger	each	2.70
Price, 6 foot Auger	each	3.00	Price, Patent Boxing; 8 or 12 Threads	each	1.00
Price, Patent Boxing; 8, 10 or 12 Threads	each	1.00	Price, Thread Bar; 8 or 12 Threads	each	2.25
Price, Thread Bar; 8, or 12 Threads	each	2.00	Price, Crank	each	.60
Price, Crank	each	.75	Price, Jack Screw for Wood Post	each	.50
Price, Jack Screw for Wood Post	each	.50	Price, Square Thread Bar Casting	each	.35
Price, Spiral Auger Socket	each	.50	Price, Flat Thread Bar Socket	each	.50
Price, Stem Post Casting	each	.50	Price, Clamp for Crank	each	.05
Price, Jack Screw Casting	each	.50	Price, Thumb Nut	each	.10

Price, No. 2 Wood Posts, 6 to 8 feet	each	3.50
Price, No. 3 Wood Posts, 4 to 6 feet	each	3.00
Price, No. 4 Wood Posts, 3 to 5 feet	each	2.50

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THE W. M. PATTISON SUPPLY CO. 1149 CLEVELAND

MINERS' STEEL POST DRILLS.

A. SIDE GEAR MACHINE.

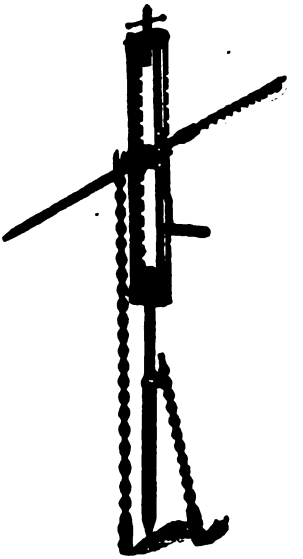

FIG. 3253.

Price, with 2 and 4 foot Augers	each	12.75
Price, with 2, 4 and 6 foot Augers and 2 foot Extension	each	14.00
Price, with 2, 4 and 6 foot Augers	each	15.00

For End Gear Drills complete as above, deduct 2.25 from list. For A: Grip Machines deduct from list of Side or End Gear Machines, 1.50. For Price of Drill less Boot, deduct 1.00.

Five Lengths of Posts, from 1½ to 10 feet.

Repairs.

Price, Boxing for End Gear	each	.90	Price, 4 foot Coal Auger	each	2.00
Price, Gear Frame	each	.50	Price, 6 foot Coal Auger	each	3.00
Price, Small Cog Wheel	each	.50	Price, 2 foot Extension Auger	each	1.15
Price, Large Cog Wheel	each	.75	Price, Complete Chair	each	.60
Price, Auger Socket	each	.50	Price, Crank	each	.75
Price, Socket for Extension Auger	each	.50	Price, Adjustable Double Crank	each	1.50
Price, Journal for Small Cog Wheel	each	.50	Price, Grip Complete	each	2.75
Price, Thread Bar	each	2.50	Price, Box and Arm	each	1.50
Price, Grip Bars	each	1.50	Price, Box Arm and Gear	each	2.25
Price, Plain Wedge	each	.25	Price, Tail Nut	each	.20
Price, 2 foot Coal Auger	each	1.00	Price, End Gear Borg	each	1.00

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THE W. M. PATTISON SUPPLY CO. 1150 CLEVELAND

MINERS' DRILLS.

RATCHET ROCK MACHINES.

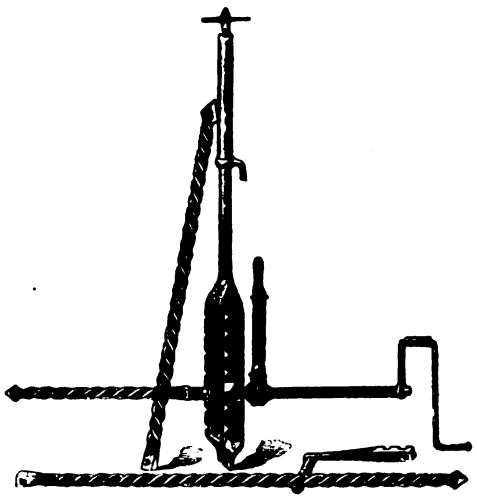

FIG. 3254.

Price, to drill 4 feet, with 2 and 4 foot Augers	each	22.50
Price, to drill 4 feet, with 1, 2, 3 and 4 foot Augers	each	26.00
Price, to drill 4½ feet, with 1½, 3 and 4½ foot Augers	each	25.00
Price, to drill 6 feet, with 2, 4 and 6 foot Augers	each	26.00

Repairs.

Price, Thread Bar, 10 or 12 Threads	each	2.50	Price, Ratchet Crank	each	2.50
Price, Boxing, 10 or 12 Threads	each	1.15	Price, Special Boot	each	1.50
Price, Jack Screw	each	.60	Price, Ring for Boot	each	.15
Price, Tail Screw	each	.20	Price, Universal Ratchet	each	2.50
Price, Rock Post complete	each	7.50	Price, Double Handle	each	1.50

Augers 1 foot to 6 foot inclusive; per foot, 1.00.

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MINERS' TOOLS.

MACHINE BIT.

FIG. 3255.

MACHINE PICKS.

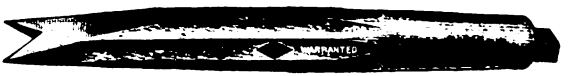

FIG. 3256.

Our Machine Bits and Picks are made of the best grade of Tool and Crucible Steel. Prices on application.

IRON AND COPPER TIPPED TAMP DRILLS.

FIG. 3257.

Length	feet	5 to 6	6½ to 7
Price, Iron; 1 inch in diameter	per dozen	15.60	17.00
Price, Copper Tipped; 1 inch in diameter	per dozen	36.00	36.00

IRON AND COPPER NEEDLES; 5 TO 7 FEET LONG.

FIG. 3258.

Price, Iron; $\frac{7}{8}$ inch; Unwelded handles	per dozen	6.50
Price, Iron; ½ inch; Welded handle	per dozen	8.00
Price, Copper; ½ inch	per dozen	30.00

DOUBLE END SCRAPERS; 5 TO 7 FEET LONG.

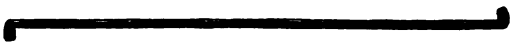

FIG. 3259.

SINGLE END IRON AND COPPER TAMPERS; 5 TO 7 FEET LONG.

FIG. 3260.

Price, Double End Scrapers	per dozen	3.00
Price, Iron, Single End Tampers	per dozen	10.80
Price, Copper, Single End Tampers	per dozen	30.00

SQUIB CASES.

FIG. 3261.
Size 1¼x7 and 1⅝x7 inches.

FILE CASES.

FIG. 3262.
Length 10 and 12 inches.

Prices on application.

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THE W. M. PATTISON SUPPLY CO. 1152 CLEVELAND

MINERS' SUPPLIES.

Mining and Blasting Powder.

FFF, FF, F, FC, C, CC, CCC, in kegs. Prices on application.

Dynamite: Strength Guaranteed as Marked.

25, 27, 33, 35, 40, 50, 60, 75, per cent. 50 pounds to the can; Cartridges, 8 inches long, 1¼ inches in diameter. Price per pound, on application.

Miners' Squibs.

10000 in a case. Price per case on application.

Detonating Caps 100 in a Box.

Price, Triple Strength....per box	.80	Price, Quadruple Strength..per box	.90

Safety Fuse.

In Boxes of 1000 feet.....	Cotton	Single Tape	Double Tape	Triple Tape
Price.....per box	2.90	3.50	4.70	5.70

Electric Platinum Fuses; In Boxes of 50 Each.

Length of Wires.....feet	4	6	8	10	12	14	16
Price, Single Strength....per box	3.00	3.54	4.08	4.62	5.16	5.70	6.24
Price, Double Strength....per box	3.75	4.29	4.83	5.37	5.91	6.45	6.99
Length of Wires.....feet	18	20	22	24	26	28	30
Price, Single Strength....per box	6.78	7.32	8.32	9.32	10.32	11.32	12.32
Price, Double Strength...per box	7.53	8.07	9.07	10.07	11.07	12.07	13.07

Leading Wire.

Price.....per pound	.40

Insulating Tape.

Price.....per pound	1.50

Chargers.

	Heavy Tin.	Heavy Zinc.	Heavy Copper.
Price.....per dozen	1.50	1.60	3.60

Spring Steel Blasting Barrels.

Price, in lengths; 5, 6, 7 and 8 feet long.....per foot	.80

⅜ and ½ inch Iron Pipe for Blasting Barrels, cut to desired length and Countersunk. Prices on application.

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THE W. M. PATTISON SUPPLY CO. 1153 CLEVELAND

BLASTING MACHINES.

THE VICTOR. THE L AND R. THE SMITH.

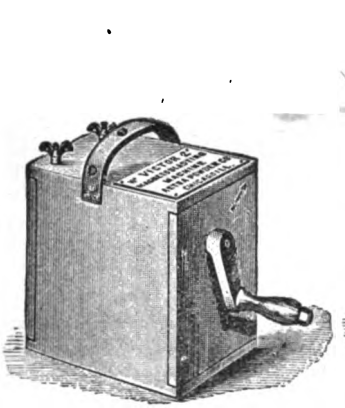

FIG. 3263

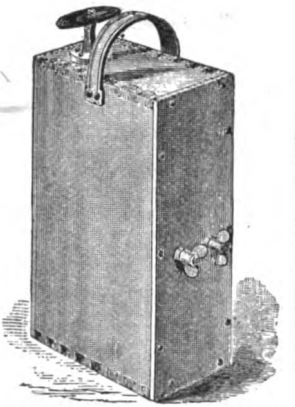

FIG. 3264.

FIG. 3265.

The Victor Blasting Machine.

Number of Holes will Fire	5 to 8	10 to 20	20 to 40
Price.....each	17.00	25.00	50.00

The L and R and Smith Blasting Machine.

Number of Holes will Fire	10 to 20	20 to 40
Price.....each	25.00	50.00

☞ The Smith Blasting Machine may be used with either two or three conducting wires. For firing a moderate number of holes, two conducting wires are used. One is connected to the center binding post and the other to either of the end ones. When firing a large number of holes better results are obtained by dividing the discharge into two circuits and using three wires. The wire in connection with the center binding post should be used as the common wire for both circuits.

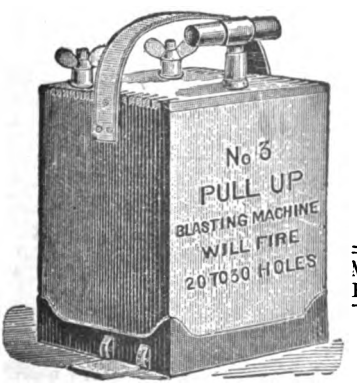

FIG. 3266.

The Pull Up Blasting Machine.

Number of Holes will Fire	20 to 30	40 to 50	75 to 100
Price.....each	25.00	50.00	75.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1154

PIECED TINWARE, I. C.

DINNER BUCKETS.

FIG. 3267.

FIG. 3268.

FIG. 3269.

Capacity, Quarts.	FIGURE 3267.		FIGURE 3268.		FIGURE 3269.	
	Size, Inches.	Price, Per Dozen.	Size, Inches,	Price, Per Dozen.	Size, Inches.	Price, Per Dozen.
2	7¼x5¼x5¼	6.00	.....	.....	8 x 5	6.50
3	8¾x6¼x6¼	7.00	8¾ x 6	7.50	8¾ x 6	8.50
4	9¼x6¾x6¾	9.50	9 x 6¾	9.50	9 x 6½	10.00

TEA AND COFFEE POTS. DRINKING CUP. DIPPER.

FIG. 3270.

FIG. 3271.

FIG. 3272.

FIG. 3273.

Tea and Coffee Pots.

Capacity .....quarts	1	1½	2	3	4
Price, Tea Pots.....per dozen	2.50	3.00	3.35	3.75	.....
Price, Coffee Pots .....per dozen	2.50	.....	3.35	3.75	4.50

Drinking Cups.

Capacity.....pints	1	2
Price.....per dozen	.70	1.30

Dippers.

Capacity.....quarts	1	2
Price.....per dozen	1.60	2.00

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THE W. M. PATTISON SUPPLY CO. 1155 CLEVELAND

OIL AND POWDER CANS; HORSE SHOES, ETC.

OIL CAN.

FIG. 3274.

POWDER CAN.

FIG. 3275.

SLEDGE, AXE AND SPIKE HATCHET.

FIG. 3276.

Oil and Powder Cans.

Capacity	½ Pint	1 Pint	½ Gallon	1 Gallon
Price, Oil Cans.....per dozen	1.60	1.80	.....	.....
Price, Powder Cans.....per dozen	.....	.....	2.50	3.00

Sledge Axes weigh 3 to 5 pounds; Spike Hatchets, 2½ to 3 pounds. Prices on application.

Horse Shoes.

Light.

	FRONT.								HIND.							
Size	0	1	2	3	4	5	6	7	8	0	1	2	3	4	5	6	7	8
Weight.....ounces	11	14	17	20	25	29	36	41	48	9	11	14	18	22	27	31	35	40
Average number in a keg	145	114	94	80	64	55	44	39	33	178	145	114	89	73	59	52	46	40

Medium.

	FRONT.								HIND.							
Size	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Weight .....ounces	17	20	25	29	35	40	46	55	14	16	20	24	29	34	38	43
Average number in a keg.....	94	80	64	55	46	40	35	29	114	100	80	67	55	47	42	37

Heavy.

	FRONT.								HIND.							
Size	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Weight .....ounces	18½	22	26	30	36	43	48	58	15	18	22	26	30	35	40	46
Average number in a keg.....	86	73	62	53	44	37	33	28	107	89	73	62	53	46	40	35

Mule Shoes.

Size	00	0	1	2	3	4	5
Weight .....ounces	8	9	12	14	16	23	27
Average number in a keg.....	200	178	133	114	100	70	59

Horse Shoe Nails.

Number	3	4	5	6	7	8	9	10
Price, Favorite.....per pound	.....	.....	.15	.15	.15	.15	.15	.15
Price, American....per pound	.....	.....	.20	.20	.20	.20	.20	.20
Price, Capewell and U.S. per pound	.....	.....	.22	.19	.18	.17	.16	.16
Price, Putnam .....per pound	1.00	.50	.26	.23	.21	.20	.19	.18
Price, Vulcan.....per pound	.....	.....	.26	.23	.21	.20	.19	.18
Price, Ausable.....per pound	.....	.....	.31	.28	.26	.25	.24	.23

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THE W. M. PATTISON SUPPLY CO. 1156 CLEVELAND

AXES.

MICHIGAN PATTERN.

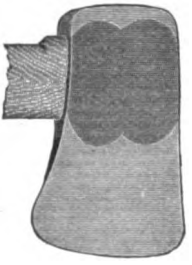

FIG. 3277.

DAYTON PATTERN.

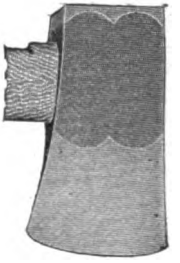

FIG. 3278

Michigan and Dayton Pattern Handled Axes.

Weight.....pounds	3½ to 4½	3½ to 4	3½ to 4½	3¾ to 4¾	4 to 5
Price.....per dozen					

Broad Axes.

PENNSYLVANIA PATTERN.

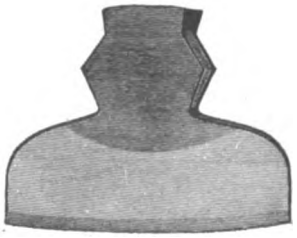

FIG. 3279.

CANADIAN PATTERN.

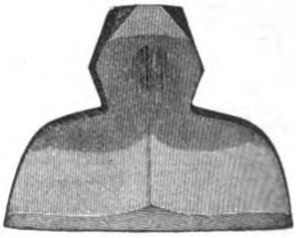

FIG. 3280.

Pennsylvania Pattern.

Weight.....pounds	5 to 6½	6 to 7	6½ to 7½	7 to 8	7½ to 8½	8 to 9
Price.....per dozen	32.00	32.00	32.00	35.00	35.00	38.00

Canadian Pattern.

Weight.....pounds	5 to 6, 5½ to 6, 5 to 7	6 to 7, 6½ to 7½	7 to 8, 7½ to 8½, 7 to 9
Price.....per dozen	42.00	44.00	46.00
Weight.....pounds	8 to 9 or 8½ to 9	9 to 10, 9½ to 10½, 9 to 11	.....
Price.....per dozen	48.00	50.00	.....

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THE W. M. PATTISON SUPPLY CO. 1157 CLEVELAND

AXES AND ADZES.

SHIP AXES.

FIG. 3281.

CARPENTERS' ADZES.

HALF HEAD.

FIG. 3282.

FULL HEAD.

FIG. 3283.

Ship Axes.

Price, 5 to 5½ pounds	per dozen	30.00

Carpenters' Adzes.

Price, Half or Full Head; 3½ to 4½ inch cut	per dozen	24.00

RAILROAD ADZE.

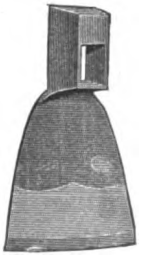

FIG. 3284.

SHIP ADZE.

FIG. 3285.

Railroad Adzes.

Price, 5 to 6 inch cut	per dozen	27.00

Ship Adzes.

Price, 4½ inch, plain cut	per dozen	25.00
Price, 5 inch, lipped cut	per dozen	30.00

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THE W. M. PATTISON SUPPLY CO. 1158 CLEVELAND

HATCHETS.

SHINGLING.

FIG. 3286.

CLAW.

FIG. 3287.

HALF.

FIG. 3288.

Cast Steel Shingling and Claw Hatchets.

Number	1	2	3
Cut .....inches	8½	4	4½
Price, Shingling, Silver Bronzed .....per dozen	8.00	8.50	9.00
Price, Shingling, Full Polished.....per dozen	10.50	11.00	11.50
Price, Claw, Silver Bronzed.....per dozen	9.00	9.50	10.00

Cast Steel Half Hatchets.

Number	1	2	3
Cut .....inches	3½	3⅝	4
Price, Silver Bronzed.....per dozen	8.50	9.00	9.50
Price, Full Polished.....per dozen	11.00	11.50	12.00

MECHANICS' PRIDE; BROAD OR BENCH HATCHETS.

FIG. 3269.

Number	1	2	3	4	5	6	7	8
Cut.....inches	4	4½	5	5½	6	6½	7	7½
Price, Cast Steel .....per dozen	10.50	11.50	13.00	14.50	16.50	18.00	19.50	22.00
Price, Hand Forged...per dozen	12.50	13.50	15.00	16.50	18.50	20.00	.....	.....

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THE W. M. PATTISON SUPPLY CO. 1159 CLEVELAND

COMPASS SAW.

FIG. 3290.

INTERCHANGEABLE COMPASS SAW.

FIG. 3291.

Compass Saws.

Length.....inches	10	12	14	16
Price, Atkins No. 4.....per dozen	3.00	3.00	3.00	3.00
Price, Disstons No. 2.....per dozen	4.25	4.50	4.75	5.00
Price, Disstons Interchangable.....per dozen	4.50	5.00	5.50	6.00
Price, Atkins Interchangable.....per dozen	5.00	5.25	5.50	5.75

Number 2 Nest of Keyhole and Compass Saws.

Length of Blade.....inches	10; Keyhole	12; Compass	16; Compass	.....
Price.....per dozen	2.00	2.75	3.25	.....
Price, Handles and Screws....per dozen	.....	2.00	Total Cost of Nest	10.00

STRAIGHT BACK.

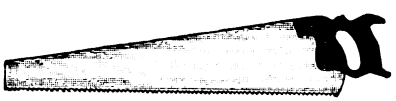

FIG. 3292.
No. 45.

SKEW BACK.

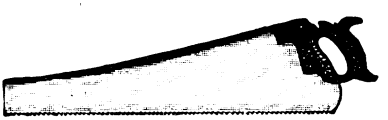

FIG. 3293.
No. 48.

Number 45 and 48 Straight and Skew Back Hand and Rip Saw.

Length.....inches	14	16	18	20	22
Price, No. 45 Straight Back.....per dozen	5.00	5.25	5.50	6.00	6.50
Price, No. 48 Skew Back.....per dozen	11.75	12.50	13.50	14.50	15.50
Length.....inches	24	26	28	.....	.....
Price, No. 45 Straight Back.....per dozen	7.00	7.50	8.50	.....	.....
Price, No. 48 Skew Back.....per dozen	16.50	18.00	21.00	.....	.....

☞Number 48 Skew Back, 28 and 30 inch are Rip Saws.

Skew Back Panel, Hand and Rip Saws; Silver Steel, Damaskeened.

Length.....inches	*16	*18	*20	*22	*24	†26	‡28	‡30
Price, No. 53.....per dozen	16.75	18.50	20.50	22.50	24.50	25.50	28.75	32.50
Price, No. 52.....per dozen	26.00	28.50	31.00	33.00	35.00	37.50	42.00	47.00

*Panel Saw. †Hand Saw. ‡Rip Saw.

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THE W. H. PATTISON SUPPLY CO. CLEVELAND 1160

SAWS.

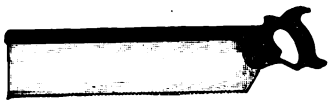

FIG. 3294.

Silver Steel Mitre Box Saws, Polished Edge.

Length.....inches	18	20	22	24	26	28	30	32
Price, Four Inches Under Back.....per dozen	25.25	27.50	29.75	32.00	34.25	36.50	38.75	41.00
Price, Five inches under Back .....per dozen			32.00	35.00	38.00	41.00	44.00	47.00
Price, Six Inches under Back.....per dozen			35.50	39.00	42.50	46.00	49.50	53.00

Silver Steel Back Saws.

Length.....inches	8	10	12	14	16	18
Price, Blued Back.....per dozen	15.00	16.00	18.00	20.00	22.50	25.00
Price, Polished Back.....per dozen	16.00	17.00	19.00	21.00	23.50	26.00

ONE MAN CROSSCUT SAWS, TUTTLE TOOTH.

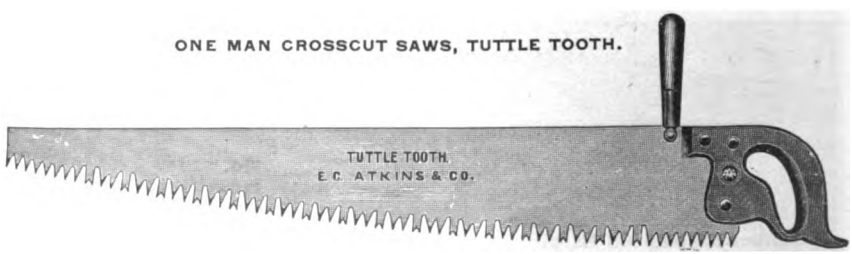

FIG. 3295.

FIG. 3296.

Length.....feet	3	3½	4	4½	5	5½	6
Price.....each	1.80	2.10	2.40	2.70	3.00	3.30	3.60

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THE W. M. PATTISON SUPPLY CO. 1161 CLEVELAND O.

SAWS, HANDLES AND SETS.

Cross Cut Saws.

COMMON TOOTH.

FIG. 3297.

TUTTLE TOOTH.

FIG. 3298.

Length.....feet	4	4½	5	5½	6	6½	7	7½	8
Price, Regular; Common and Tuttle Tooth.....each	1.84	2.08	2.30	2.54	2.76	3.00	3.22	3.46	3.68
Price, Thin Back; Common, Tuttle and Diamond Point Tuttle Tooth.....each	2.00	2.26	2.50	2.76	3.00	3.26	3.50	3.76	4.00
Price, Extra Thin Back, Diamond Point Tuttle Tooth.each	2.50	2.76	3.00	3.26	3 50	3.76	4.00	4.26	4.50

Cross Cut Saw Handles.

REVERSIBLE HANDLE, MALLEABLE CLASP

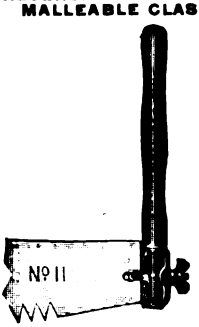

FIG. 3299.

LOOP HANDLE, IRON COMBINATION PLUG AND NUT WITH LUGS.

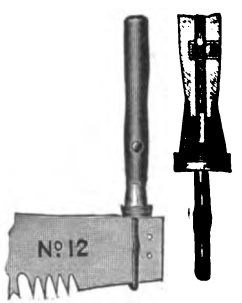

FIG. 3300.

Number	11	12
Price.....per pair	.15	.40

MORRILLS' SAW SETS.

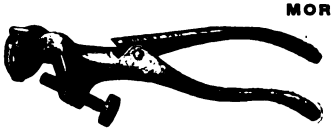

FIG. 3301.
No. 1.

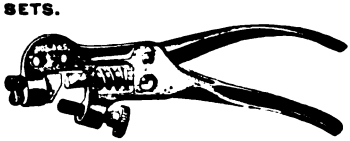

FIG. 3302.
No. 4.

Price, No. 1; Polished, for Hand, Band and Jig Saws.....per dozen	12.00
Price, No. 4; Polished, for Cross Cut Saws .....per dozen	24.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1162

SOLID TOOTH CIRCULAR SAWS.

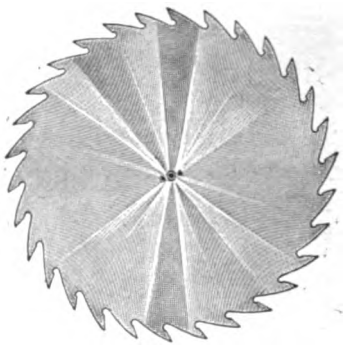

FIG. 3303.

Diameter, Inches.	Thickness, Gauge.	Size of Hole, Inches.	Price, Each.	Price Extra for Each Additional Gauge (Heavier).	Price for Beveling New Saws (Grinding or Beveling Old Saws Extra), Per Gauge.	Diameter, Inches.	Thickness, Gauge.	Size of Hole, Inches.	Price, Each.	Price Extra for Each Additional Gauge (Heavier.)	Price for Beveling New Saws (Grinding or Beveling Old Saws Extra), Per Gauge.
1	24		.55	.01	.06	32	10	1	22.00	1.00	1.40
1½	24		.60	.01	.07	34	9	1	25.00	1.20	1.55
2	23		.65	.01½	.08	36	9	1	28.00	1.40	1.70
2½	22		.70	.02	.09	38	9	1	31.00	1.75	1.85
3	21		.75	.02½	.10	40	9	2	36.00	2.00	2.00
3½	20		.85	.03	.12	42	8	2	42.00	2.50	2.20
4	19		1.10	.03	.14	44	8	2	50.00	3.00	2.40
5	19		1.30	.04	.16	46	8	2	60.00	3.50	2.60
6	18		1.55	.05	.18	48	8	2	70.00	4.00	2.80
7	18		1.85	.06	.20	50	7	2	80.00	4.50	3.00
8	18		2.20	.08	.22	52	7	2	90.00	5.00	3.25
9	17		2.75	.10	.25	54	7	2	100.00	6.00	3.50
10	16	1	3.30	.12	.28	56	7	2	115.00	7.00	3.75
11	16	1	3.80	.14	.30	58	7	2	130.00	8.00	4.05
12	15	1	4.15	.17	.35	60	6	2	145.00	9.00	4.35
14	15	1¼	5.00	.21	.40	62	6	2	160.00	10.00	4.65
16	14	1¼	6.00	.25	.50	64	6	2	180.00	12.00	5.00
18	13	1¼	7.50	.30	60	66	6	2	200.00	15.00	5.35
20	13	1¼	9.00	.35	.70	68	5	2	225.00	18.00	5.75
22	12	1¼	11.00	.45	.80	70	5	2	255.00	21.00	6.15
24	11	1¼	13.00	.55	.90	72	5	2	290.00	24.00	6.55
26	11	1¼	15.00	.65	1.05	74	5	2	330.00	27.00	7.00
28	10	1¼	17.00	.80	1.20	76	5	2	375.00	30.00	7.50
30	10	1¼	19.00	.90	1.30	...	...	...	.....	.....	.....

No extra charge for Saws one gauge thicker than list.
Saws 28 inches and under beveled one gauge without extra charge.
Saws 40 inches and over beveled two gauges without extra charge.
Lathe Saws for handle turning machines, and similar work, at special prices.
Saws 48 inches in diameter and larger, thinner than ten gauge, add ten per cent. for each gauge thinner and no warrant.

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THE W. M. PATTISON SUPPLY CO. 1163 CLEVELAND

PEAVIES AND CANT HOOKS.

SPLIT SOCKET PEAVY, ROUND BILL.

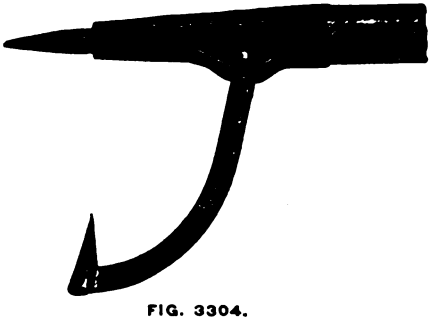

FIG. 3304.

SOLID SOCKET PEAVY, DUCK BILL

FIG. 3305.

Split and Solid Socket Peavies, Round or Duck Bill.

Diameter of Handles.....inches	2½	2¾	3
Price, with Rock Maple Handles.....per dozen	21.00	23.50	26.00
Price, with Hickory Handles.....per dozen	22.50	25.50	28.00

Handles 4½, 5, 6½ and 6 feet long.

CANT HOOK.

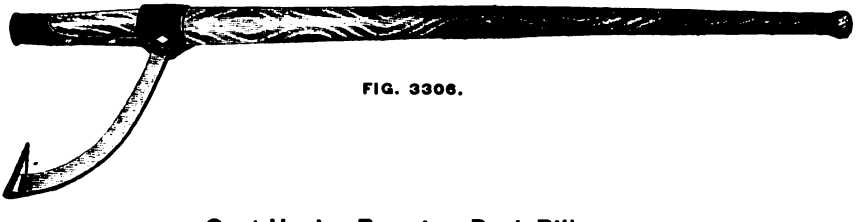

FIG. 3306.

Cant Hooks, Round or Duck Bill.

Diameter of Handles.....inches	2½	2¾	3
Price, with Rock Maple Handles.....per dozen	17.50	19.00	21.00
Price, with Hickory Handles.....per dozen	20.00	20.50	22.50

Handles 4½, 5, 5½ and 6 feet long.

Peavy and Cank Hook Handles.

Size.....	2½ in. x 4 ft.	2½ in. x 4½ ft	2½ in. x 5 ft.	2½ in. x 5½ ft	2½ in. x 6 ft
Price, Rock Maple per dozen	3.20	3.40	3.70	4.00	4.40
Price, Hickory.....per dozen	.....	4.00	4.30	4.70	5.10

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TIMBER CARRIERS, ETC.

FIG. 3307.

Price, with Round Hooks.....per dozen	35.00	Price, with Duck Bill Hooks.....per dozen	36.50

PIKE POLES OF SELECTED ASH OR SPRUCE.

FIG. 3308.

Length.....feet	12	14	16	18	20
Price .....per dozen	20.00	23.25	27.00	36.25	50.00

WOOD HANDLE TAMPING BARS.

FIG. 3309.

Price, with Handles 8 feet long and Iron Shoe.....each	3.00

POLE SUPPORT.

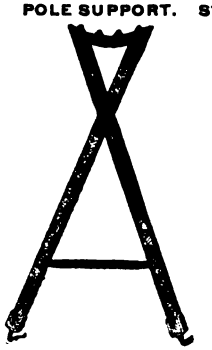

FIG. 3310.

STEEL MULE SUPPORT.

FIG. 3311.

TIMBER DOLLY.

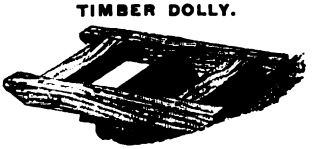

FIG. 3312.

	Small Size, Ends Square.	Large Size, Mortised Frame, Beveled Edges.
Frame.....inches	15¾ x 18¾	19½ x 26
Roller.....inches	6 x 10	Iron 6 x 12
Weight..pounds	42	58
Price.....each	6.00	8.00

Length.....feet	4½	6	7½
Price, Pole Supports.....each	.....	5.00	6.00
Price, Mule Supports.....each	3.00	5.00	6.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1165

HANDLES.

COMPASS SAW.

FIG. 3313.

HAND SAW.

FIG. 3314.

D. 8 HAND SAW.

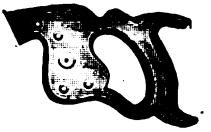

FIG. 3315.

Price, Beechwood Compass Saw Handles	per dozen	1.25
Price, Beechwood Panel Saw Handles	per dozen	1.35
Price, Beechwood Hand Saw Handles	per dozen	1.40
Price, Applewood D 8 Hand Saw Handles	per dozen	4.00

COMMON AUGER.

FIG. 3316.

PRATTS' AUGER.

FIG. 3317.

Price, Common	per dozen	.80	Price, Pratts' 14 and 17 inch	per dozen	6.00
			Price, Pratts' Ratchet	per dozen	24.00

HAYS' AUGER.

FIG. 3318.

SWANS' AUGER.

FIG. 3319.

Price, Hays'	per dozen	10.00	Price, Swans'	per dozen	12.00

SOCKET FIRMER CHISEL.

FIG. 3320.

FIRMER CHISEL.

FIG. 3321.

SOCKET FRAMING CHISEL.

FIG 3322.

Figure Number		3320	3321	3322
Price	per dozen	.50	.60	.70
Price, Leather Cap	per dozen	2.00	2.40	2.00

FILE.

FIG. 3323.

SOLDERING COPPER.

FIG. 3324

File Handles.

Price per dozen	Small .40	Medium .50	Large .60

Soldering Copper Handles.

Price per dozen	Common .60	Donoghue's Regular 1.00	Donoghue's Large 1.25

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THE W. M. PATTISON SUPPLY CO. 1166 CLEVELAND

HANDLES.

ADZE EYE HAMMER.

FIG. 3325.

ROUND EYE HAMMER.

FIG. 3326.

HATCHET.

FIG. 3327.

BROAD OR BENCH HATCHET.

FIG. 3328.

SINGLE BIT AXE.

FIG. 3329.

DOUBLE BIT AXE.

FIG. 3330.

HOUSE CARPENTERS' ADZE.

FIG. 3331.

SHIP OR RAILROAD ADZE.

FIG. 3332.

SLEDGE, TOOL AND MAUL.

FIG. 3333.

SURFACE AND RAILROAD PICK OR MATTOCK.

FIG. 3334.

STONE PICK.

FIG. 3335.

COAL AND DRIFTING PICK.

FIG. 3336.

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THE W. M. PATTISON SUPPLY CO. 1167 CLEVELAND

HANDLES.

SECOND GROWTH HICKORY, HAND SHAVED.

Hammer and Hatchet.

Machinists'; Riveting, Tapping, Adze Eye and Hatchet Handles.

Length.....inches	12	13	14	15	16	17	18	20	22	24
Price, Extra.....per dozen	1.25	1.25	1.25	1.25	1.40	1.40	1.60	1.60	2.00	2.00
Price, Number 1.....per dozen	.80	.80	.80	.80	.90	.90	1.00	1.00	1.20	1.20
Price, Number 2.....per dozen	.60	.60	.60	.60	.70	.70	.80	.80	.90	.90

Axe Handles.

Length.....inches	34	36	38
Price, Extra.....per dozen	4.00	4.40	5.00
Price, Excelsior.....per dozen	3.00	3.40	4.00
Price, XX.....per dozen	2.20	2.40	2.80
Price, X.....per dozen	1.60	2.00	2.40

Carpenters' Ship and Railroad Adze Handles.

Length.....inches	32	34	36
Price, Extra.....per dozen	4.20	4.80	4.80
Price, Excelsior.....per dozen	3.80	4.00	4.00
Price, Number 1.....per dozen	3.00	3.60	3.60

Sledge, Tool and Maul Handles.

Length..... inches	24	26 and 28	30 and 32	34 and 36	38
Price, Extra.....per dozen	2.00	2.20	2.30	2.50	2.80
Price, Number 1.....per dozen	1.50	1.60	1.80	1.90	2.10
Price, Number 2.....per dozen	.90	1.15	1.25	1.40	1.50

Surface and Railroad Pick or Mattock Handles.

Length.....inches	32	34	36
Price, Extra.....per dozen	4.00	4.40	4.40
Price, Excelsior.....per dozen	3.40	3.60	3.60
Price, Number 1.....per dozen	3.00	3.20	3.20
Price, Number 2.....per dozen	2.40	2.80	2.80

Stone and Miners' Pick Handles.

Length.....inches	30	32	34	36
Price, Extra.....per dozen	2.30	2.40	2.50	2.60
Price, Number 1.....per dozen	1.90	2.00	2.10	2.20
Price, Number 2.....per dozen	1.60	1.70	1.80	1.90

Shovel, Spade and Scoop Handles.

Price, Long Shovel or Spade Handles.....per dozen	2.50
Price, D Shovel, Spade or Scoop Handles.....per dozen	3.50
Price, D Ditching Spade Handles.....per dozen	4.00

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THE W. M. PATTISON SUPPLY CO. 1168 CLEVELAND

SCREW DRIVERS.

CAST STEEL.

FIG. 3337.

CAST STEEL, ROUND BLADE.

FIG. 3338.

Cast Steel Screw Drivers, Fig. 3337.

Length.....inches	2	3	4	5	6	7	8	10	12
Price.....per dozen	1.50	2.00	2.50	3.00	3.50	4.00	4.75	6.00	8.00

Cast Steel Screw Drivers, Round Blade, Fig. 3338.

Length.....inches	2	3	4	5	6	7	8
Price .....per dozen	2.00	2.75	3.00	3.50	4.00	5.00	5.50

CAST STEEL, ROUND BLADE.

FIG. 3339.

CHAMPION.

FIG. 3340.

Cast Steel Screw Drivers, Round Blade, Fig. 3339.

Length.....inches	3	4	5	6	7	8	10	12
Price.....per dozen	3.00	3.60	4.20	4.80	5.90	6.50	8.00	10.00

Champion Screw Drivers.

Length..... .....inches	2½	3	4	5	6	8	10	12
Price.....per dozen	3.00	3.50	4.25	5.00	6.00	8.00	10.00	12.00

HURWOOD.

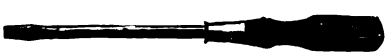

FIG. 3341.

HURWOOD, SECTIONAL.

FIG. 3342.

Hurwood Screw Drivers.

Length.....inches	2½	3	4	5	6	7	8
Price.....per dozen	3.00	3.50	4.25	5.00	6.00	7.00	8.00
Length..... inches	9	10	12	15	18	24	30
Price .....per dozen	9.00	10.00	12.00	15.00	18.00	24.00	30.00

SPIRAL RATCHET SCREW DRIVER.

FIG. 3343.

Spiral Ratchet Screw Drivers, Number 20: Right Hand and Rigid.

Size.....	1	2	3
Length Extended, including Bit.....inches	14	17	19
Length, Closed.....inches	10	12	13
Price, Three Blades in Each Set..... .....per dozen sets	14.00	16.00	18.00

Spiral Ratchet Screw Drivers, No. 30: Right and Left Hand and Rigid.

Size, Length Extended 19½ inches, Closed 13½ inches.....	.....
Price, Three Blades in Each Set.....per dozen sets	21.00

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SCREW DRIVER BITS, NAIL SETS, AWLS, ETC.

THE W. M. PATTISON SUPPLY CO. 1169 CLEVELAND

SCREW DRIVER BIT.

FIG. 3344.

SCRATCH AWL.

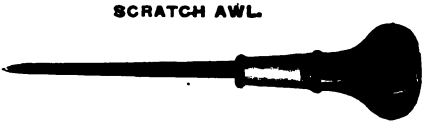

FIG. 3345.

Screw Driver Bits.

Price, Cast Steel, Polished, Assorted Widths	per dozen	1.00
Price, Buck; Cast Steel, Polished, Assorted Widths	per dozen	1.90

Scratch Awls.

Price, Length, 5½ inches; Blade 2¼ inches	per dozen	3.50
Price, Length, 6½ inches; Blade 3¼ inches	per dozen	3.75

Nail Sets.

OCTAGON.

FIG. 3346.

KNURLED.

FIG. 3347.

Price, Octagon	per dozen	.75	Price, Knurled	per dozen	1.00

SQUARE REAMER.

FIG. 3348.

ROSE COUNTERSINK.

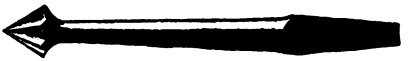

FIG. 3349.

Reamers.

	Square, Polished	Half Round, Polished	Octagon, Polished
Price per dozen	2.35	2.60	2.75

Countersinks.

	Flat, Polished	Snail Head, Polished	Rose, Polished
Price per dozen	2.50	2.50	2.75

GIMLET BIT, DOUBLE CUT.

FIG. 3350.

Gimlet Bits, Double Cut.

Size	0	1	2	3	4	5	6	Assorted 1 to 6
Price per dozen	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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AUGER BITS.

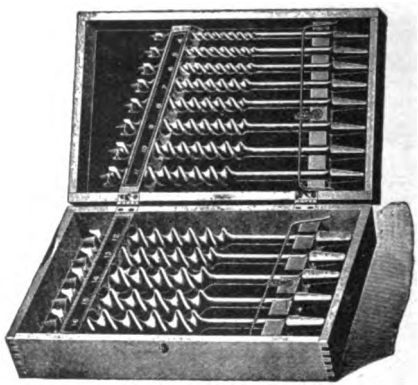

FIG. 3351.

Auger Bits in Sets: In Wooden Boxes.

	11¼	14	18¾	32½
Assorted Quarters				
Price, Bates' Double Spur.....per set	1.35	1.60	2.25	3.90
Price, Snells' Extra Double Spur.....per set	1.60	2.00	2.80	4.85
Price, Snells' Jennings Pattern, Extension Lip....per set	2.00	2.50	3.50	6.20

Assorted Sets Are Made Up As Follows:

Quarters.....	11¼	14	18¾	32½
One Bit Each, 16ths. .	4,5,6,8,10,12	4, 6, 8, 10, 12, 16	4,5,6,8,10,12,14,16	4 to 16

Snells' Jennings Pattern Auger Bits, Extension Lip.

Size in 16ths.....	3	4	5	6	7	8	9	10	11	12
Price.....per dozen	3.40	3.00	3.40	3.80	4.40	4.80	5.20	5.60	6.10	6.60

Size in 16ths.....	13	14	15	16	17	18	20	22	24	.....
Price.....per dozen	7.20	7.80	8.40	9.00	9.60	10.20	11.40	12.60	13.80	.....

Price, in Assorted Sets...per set	24 Quarters	4.75	32½ Quarters	6.25

Snells' Car Bits, 12 Inch Twist.

Size in 16ths.....	4	5	6	7	8	9	10	11
Price.....per dozen	6.50	6.50	7.50	9.00	10.25	11.25	12.75	13.25

Size in 16ths.....	12	13	14	15	16	17	18	20
Price.....per dozen	15.50	16.50	17.75	18.75	20.50	24.00	27.00	30.00

Snells' Car Bits, 12 Inch Twist; In Assorted Sets.

Quarters	21	24	32½
Size in 16ths	One Each: 5, 6, 7, 9, 10, 11, 12 Two Each: 4, 8	One Each: 4, 5, 7, 9, 11, 12 Two Each: 6, 8, 10	One Each: 4 to 16 inclusive
Price.....per set	9.50	10.50	14.00

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THE W. M. PATTISON SUPPLY CO. 1171 CLEVELAND

AUGERS AND BITS.

NUT AUGER.

FIG. 3352.

RAFTING AUGER.

FIG. 3353.

Carpenters' Nut Augers, 15 to 20 Inches Long.

Size.....inches	5/8	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2	1 3/4
Price.....per dozen	6.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	15.00	15.00	18.00

Size.....inches	2	2 1/8	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2	3 3/4	4	.....
Price.....per dozen	22.00	38.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	120.00	.....

Rafting Augers, 12 inch Twist; 30 inches Long.

Size.....inches	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/2	4
Price.....per dozen	27.00	30.00	36.00	42.00	60.00	70.00	85.00	100.00	120.00	140.00

Ship Augers, With or Without Sorew.

WITH SCREW.

FIG. 3354.

WITHOUT SCREW.

FIG. 3355.

Size in 8ths.....	2 to 4	4 1/2 and 5	5 1/2 and 6	6 1/2 and 7	7 1/2 and 8	8 1/2 and 9
Price..per dozen	7.50	9.00	10.50	12.00	13.50	15.00
Size in 8ths.....	9 1/2 and 10	10 1/2 and 11	11 1/2 and 12	12 1/2 and 13	13 1/2 and 14	14 1/2 and 15
Price..per dozen	16.50	18.00	21.00	24.00	25.50	31.50
Size in 8ths.....	15 1/2 and 16	16 1/2 and 17	17 1/2 and 18	18 1/2 and 19	19 1/2 and 20	21 1/2 and 21
Price..per dozen	38.00	57.00	72.00	86.00	101.00	115.00
Size in 8ths.....	21 1/2 and 22	22 1/2 and 23	23 1/2 and 24	24 1/2 and 25	25 1/2 and 26	26 1/2 and 27
Price..per dozen	130.00	144.00	158.00	173.00	187.00	201.00
Size in 8ths.....	27 1/2 and 28	28 1/2 and 29	29 1/2 and 30	30 1/2 and 31	31 1/2 and 32	.....
Price..per dozen	216.00	231.00	245.00	260.00	274.00	.....

Lengths of Screw Ship Augers.

Size in 8ths.....	4	6	8	12	16
Length of Twist.....inches	10	12	14	15	16
Total Length.....inches	14	16	18	20	21

SHIP AUGER BITS, WITH OR WITHOUT SCREW.

FIG. 3356.

Size in 8ths.....	2 to 4	4 1/2 and 5	5 1/2 and 6	6 1/2 and 7	7 1/2 and 8	8 1/2 and 9	9 1/2 and 10
Price..per dozen	6.00	7.50	9.00	10.50	12.00	13.50	15.00

Price, in Sets, one each from 2 to 8 eighths, per set, 9.00.

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THE W. M. PATTISON SUPPLY CO. 1172 CLEVELAND

AUGERS.

SHIP AUGERS, EXTRA LENGTH TWIST; SHANKS ANY DESIRED LENGTH, WITH OR WITHOUT SCREW.

Size in 8ths.	PRICE, PER DOZEN. LENGTH OF TWIST, INCHES.					
	18	20	22	24	30	36
4 and Under	9.60	11.52	13.44	15.63	17.28	19.20
4½	10.80	12.96	15.12	17.28	19.44	21.60
5	12.00	14.40	16.80	19.20	21.60	24.00
5½	13.20	15.84	18.48	21.12	23.76	26.40
6	14.40	17.28	20.16	23.04	25.92	28.80
6½	15.60	18.72	21.84	24.96	28.08	31.20
7	16.80	20.16	23.52	26.88	30.24	33.60
7½	18.00	21.60	25.20	28.80	32.40	36.00
8	19.20	23.04	26.88	30.72	34.56	38.40
8½	20.40	24.48	28.56	32.64	36.62	40.80
9	21.60	25.92	30.24	34.56	38.88	43.20
9½	22.80	27.36	31.92	36.48	41.04	45.60
10	24.00	28.80	33.60	38.40	43.20	48.00
10½	25.20	30.24	35.28	40.32	45.36	50.40
11	26.40	31.68	36.96	42.24	47.52	52.80
11½	27.60	33.12	38.64	44.16	49.69	55.20
12	28.80	34.56	40.30	46.08	51.84	57.60
12½	30.00	36.00	42.00	48.00	54.00	60.00
13	31.20	37.44	43.68	49.92	56.16	62.40
13½	32.40	38.88	45.36	51.84	58.32	64.80
14	33.60	40.32	47.04	53.76	60.48	67.20
14½	39.80	46.76	53.72	60.68	67.64	74.60
15	41.00	48.20	55.40	62.60	69.80	77.00
15½	44.20	51.64	59.08	66.52	73.96	81.40
16	45.40	53.08	60.76	68.44	76.12	84.80

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THE W. M. PATTISON SUPPLY CO. 1173 CLEVELAND

EXPANSIVE BIT.

FIG. 3357.

FIG. 3358.

Clark's Expansive Bits.

Number	1, Small, Cutting ½ to 1¼ inches, two Cutters	2, Large, Cutting ⅞ to 3 inches, two Cutters
Price.....per dozen	18.00	26.00

Extra Cutters for Clark's Expansive Bits.

	Small Cutters for Small Bits.	Large Cutters for Small Bits.	Small Cutters for Large Bits.	Large Cutters for Large Bits.	Extra Large Cutters for Large Bits.	Extra Large Cutters for Large Bits.
Number	1	2	3	4	5	6
Size.....inches	½ to ⅞	⅞ to 1½	⅞ to 1¾	1¾ to 3	3 to 4	4 to 5
Price.....per dozen	3.00	3.75	5.25	6.00	9.00	12.00

DRAWING KNIVES.

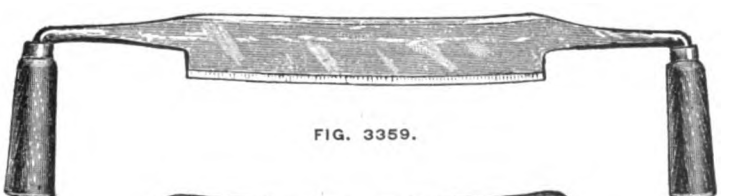

FIG. 3359.

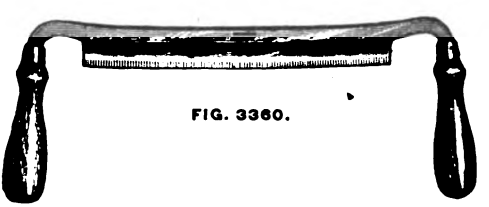

FIG. 3360.

Razor Blade Drawing Knives.

Size.....inches	6	7	8	9	10	11	12	13	14	16
Price.....per dozen	17.00	18.00	19.00	20.00	21.00	22.00	23.00	25.00	26.00	29.00

Extra Heavy Drawing Knives, Fig. 3359, for removing bark from Cedar Poles, etc. Prices on application.

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CHISELS AND GOUGES.

SOCKET FIRMER CHISEL.

FIG. 3361.

SOCKET FRAMING CHISEL.

FIG. 3362.

Socket Firmer Chisels; Length of Blade 6 to 7 inches.

Size ....inches	1/8	1/4	5/16	3/8	1/2	5/8	3/4	7/8
Price....per dozen	8.00	8.00	8.00	8.00	9.00	10.00	11.00	11.00

Size ....inches	1	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	2
Price....per dozen	12.00	13.00	13.00	14.00	14.00	15.00	15.00	16.00

Socket Firmer Chisels; Assorted, in Sets.

Price, 1/8 to 1 1/2 inch (9) 1/8, 1/4, 3/8, 1/2, 5/8, 3/4, 1, 1 1/4, 1 1/2....per set	7.75
Price, 1/4 to 2 inch (8) 1/4, 3/8, 1/2, 5/8, 1, 1 1/4, 1 1/2, 2....per set	8.25
Price, 1/8 to 2 inch (12) 1/8, 1/4, 3/8, 1/2, 5/8, 3/4, 7/8, 1, 1 1/4, 1 1/2, 1 3/4, 2....per set	11.25

Socket Framing Chisels; Length of Blade 8 inches.

Size ....inches	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1
Price....per dozen	12.00	12.00	12.00	12.00	12.00	13.00	14.00	15.00	16.00

Size ....inches	1 1/8	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3
Price....per dozen	18.00	18.00	20.00	22.00	24.00	28.00	32.00	36.00	40.00

Socket Framing Chisels; Assorted, in Sets.

Price, 1/4 to 2 inch (9) 1/4, 3/8, 1/2, 5/8, 3/4, 1, 1 1/4, 1 1/2, 2....per set	14.00
Price, 1/4 to 2 inch (12) 1/4, 5/16, 3/8, 1/2, 5/8, 3/4, 7/8, 1, 1 1/4, 1 1/2, 1 3/4, 2....per set	18.00

TANGED TURNING CHISEL.

FIG. 3363.

SOCKET FIRMER GOUGE.

FIG. 3364.

Tanged Turning Chisels.

Size ....inches	1/8	5/16	1/4	5/16	3/8	1/2	5/8
Price....per dozen	2.20	2.25	2.25	2.40	2.45	2.70	3.00

Size ....inches	3/4	7/8	1	1 1/4	1 1/2	1 3/4	2
Price....per dozen	3.40	3.70	4.35	5.40	7.00	8.40	10.00

Socket Firmer Gouges.

Size....inches	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/4	1 1/2	1 3/4	2
Price....each	5.00	5.75	6.00	7.00	8.00	8.50	9.00	9.50	10.50	11.50	12.00	13.00

Socket Firmer Gouges; Assorted, in Sets.

Price, 1/4 to 2 inch (8) 1/4, 1/2, 3/4, 1, 1 1/4, 1 1/2, 1 3/4, 2....per set	7.50
Price, 1/4 to 2 inch (12) 1/4, 1/2, 3/4, 1, 1 1/4, 1 1/2, 1 3/4, 2....per set	10.00

Tanged Turning Gouges.

Size ....inches	1/8	5/16	1/4	5/16	3/8	1/2	5/8
Price....per dozen	2.90	2.90	2.90	3.25	3.30	3.65	3.95

Size ....inches	3/4	7/8	1	1 1/4	1 1/2	1 3/4	2
Price....per dozen	4.60	5.25	5.90	7.70	10.00	11.80	14.50

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THE W. M. PATTISON SUPPLY CO. 1175 CLEVELAND

PLANES.

Wood Bottom Adjustable Planes.

SMOOTH PLANE.

FIG. 3365.

HANDLED SMOOTH PLANE.

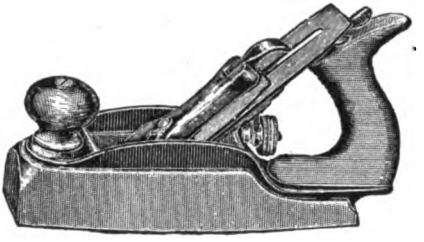

FIG. 3366.

Length.....inches	7	8	9	8	9	10	Jenny 13
Cutter.....inches	1¾	1¾	1¾	2	2	2⅜	2⅜
Price, Smooth Planes.....each	2.00	2.00	2.00	2.00	.....	.....	.....
Price, Handled Smooth Planes.....each	.....	.....	.....	.....	2.50	2.75	3.00

JACK AND FORE PLANES.

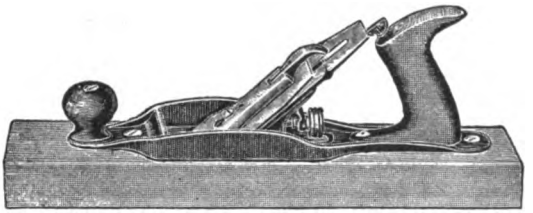

FIG. 3367

Length.....inches	15	15	15	18	20
Cutter.....inches	2	2⅛	2¼	2⅜	2⅜
Price, Jack Planes.....each	2.25	2.50	2.50	.....	.....
Price, Fore Planes.....each	.....	.....	.....	2.75	2.75

Iron Planes.

ADJUSTABLE BLOCK PLANE.

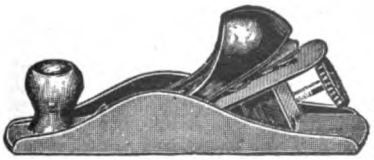

FIG. 3368.

BLOCK PLANE, ROSEWOOD HANDLE.

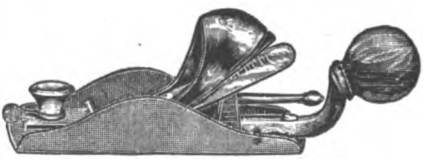

FIG. 3369.

Length.....inches	7½	6	7
Cutter.....inches	1¾	1¾	1¾
Price, Adjustable Block Planes.....each	.85	.....	.....
Price, Block Planes; Rosewood Handles.....each	.....	1.75	1.85

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THE W. M. PATTISON SUPPLY CO. 1176 CLEVELAND

PLANES.

Iron Planes.

HANDLED SMOOTH PLANE.

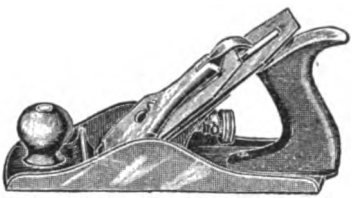


FIG. 3370.

JACK PLANE.

FIG. 3371.

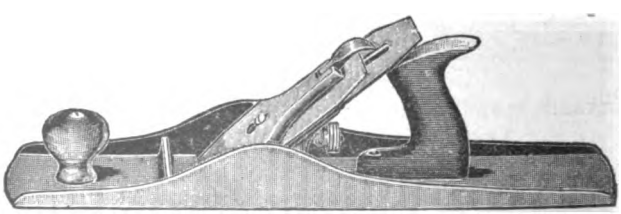
Handled Smooth Planes.

Length.....inches	8	9	9½	10
Cutter.....inches	1¾	2	2⅛	2⅜
Price, Handled Smooth Planes.....each	3.00	3.25	3.60	3.75

Jack Planes.

Length.....inches	14	14	15	15
Cutter.....inches	2	2⅛	2⅛	2⅜
Price, Jack Planes.....each	3.75	4.00	4.25	4.50

FORE AND JOINTER PLANES.



F. G. 3372.

Length.....inches	18	22	24
Cutter.....inches	2¾	2¾	2⅝
Price, Fore Planes.....each	4.75	.....	.....
Price, Jointer Planes.....each	.....	5.50	6.50

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THE W. M. PATTISON SUPPLY CO. 1177 CLEVELAND

STEEL AND IRON SQUARES.

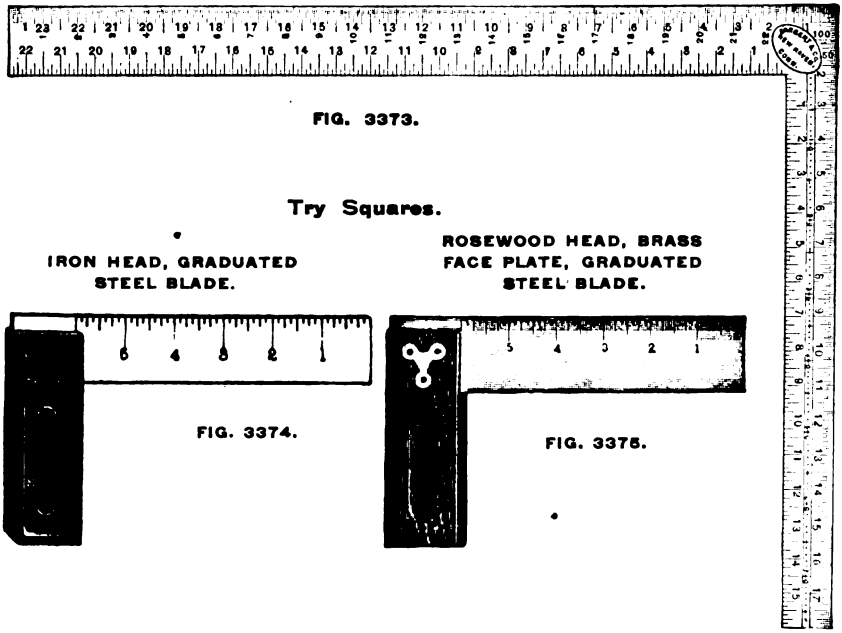

FIG. 3373.

Try Squares.

IRON HEAD, GRADUATED STEEL BLADE.

FIG. 3374.

ROSEWOOD HEAD, BRASS FACE PLATE, GRADUATED STEEL BLADE.

FIG. 3375.

Steel and Iron Squares.

Price, No. 4: Iron; 2 inches wide, marked both sides; 24 inch Blade, 12 inch tongue.....per dozen	12.50
Price, No. 10, Extra: Polished Steel; 1 foot, 1½ inches wide, 12ths, 8ths and 4ths .....per dozen	20.00
Price, No. 3, Super-Super Extra: Polished Steel, 2 inches wide, 16ths, 12ths, 8ths, 4ths, Board and Brace measure.....per dozen	27.50
Price, No. 3, Super-Super Extra: Nickel Plated Steel, 2 inches wide, 16ths, 12ths, 8ths, 4ths, Board and Brace measure.....per dozen	35.00

Try Squares.

Size.....inches	3	4	4½	6	7½	8	9	10	12
Price, Iron Head.....per dozen	.....	2.75	.....	3.50	.....	4.50	.....	5.50	7.00
Price, Rosewood Head....per dozen	3.00	.....	3.75	5.00	5.75	.....	6.50	7.25	8.50

Wooden Measuring Rods, Brass Tipped.

Length.....feet	6	8	10
Price, ⅛ inch Graduations.....each	.75	.85	100
Price, ¼ inch Graduations.....each	.....	.65	.75
Price, 1 inch Graduations.....each	.....	.....	.50

6 and 8 foot Rods, 3¾ inches square; 10 foot, ⅞ inches square.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND 1178

T BEVELS, DIVIDERS, ETC.

SLIDING T BEVEL.

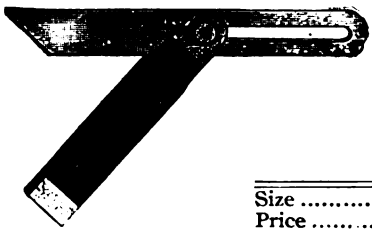

FIG. 3376.

WING DIVIDER.

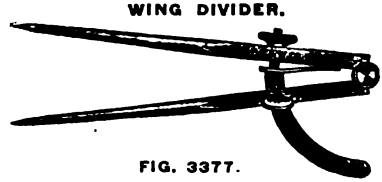

FIG. 3377.

Sliding T Bevels.

Size .....inches	6	8	10	12	14
Price .....per dozen	5.50	6.00	6.50	7.00	7.50

Full Polished Wing Dividers.

Length..... inches	6	7	8	9	10	12	15	18
Price.....per dozen	5.50	6.50	7.50	9.00	10.00	12.00	18.00	25.00

POLISHED TRIP GONG BELLS.

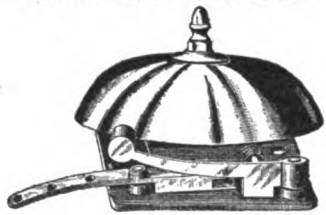

FIG. 3378.

Size..... inches	3	4	5	6	7	8
Price..... per dozen	10.00	12.50	16.50	24.00	34.00	46.00

Size.....inches	9	10	12	14	16	18
Price.....per dozen	70.00	84.00	150.00	212.00	280.00	310.00

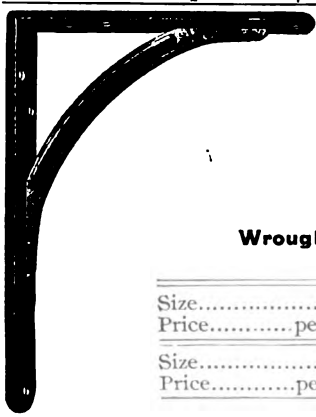

FIG. 3379.

Wrought Steel Shelf Brackets; Japanned.

Size.....inches	3 x 4	4 x 5	5 x 6	5 x 7	6 x 8
Price.....per dozen pairs	.96	1.36	2.20	2.40	3.00

Size.....inches	7 x 9	8 x 10	10 x 12	12 x 24	.....
Price.....per dozen pairs	3.60	4.20	6.00	9.00	.....

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THE W. M. PATTISON SUPPLY CO. 1179 CLEVELAND

NAIL PULLER.

FIG. 3380.

BOX CHISEL.

FIG. 3381.

Nail Pullers.

Length.....inches	15	18
Price.....per dozen	13.75	15.00

Box Chisels.

Length.....inches	10	12	14	16
Price.....per dozen	4.00	4.50	4.75	6.00

SHIP SCRAPER.

FIG. 3382.

DOUBLE HANDLE BOX SCRAPER.

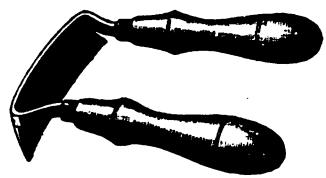

FIG. 3383.

Ship and Box Scrapers.

Price, Ship Scrapers; 5 inch cut, Cast Steel Blades.....	per dozen	5.00
Price, Extra 5 inch Blades for Ship Scrapers.....	per dozen	2.50
Price, Double Handle Box Scrapers.....	per dozen	8.00

BOX HOOKS.

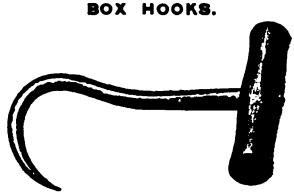

FIG. 3384.

Size.....inches	⅝ x 9	⅝ x 10
Price..... per dozen	2.40	3.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

PULLEYS AND HOOKS AND EYES.

SCREW PULLEY.

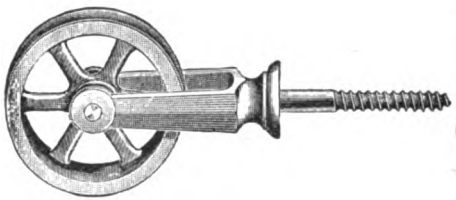

FIG. 3385.

HOTHOUSE PULLEY.

FIG. 3386.

Japanned Iron Screw Pulleys.

Number	1	1¼	1½	1¾	2	2¼	2½	3	4	5
Price.....per dozen	.26	.28	.34	.40	.52	.66	.70	1.10	2.50	5.00

Japanned Iron Hothouse Pulleys.

Size.....inches	1¾	2	2½
Price, Single.....per dozen	1.00	1.20	2.20
Price, Double.....per dozen	1.60	1.90	3.25

SIDE PULLEY.

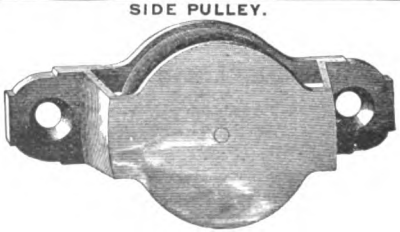

FIG. 3387.

TACKLE OR AWNING PULLEY.

FIG. 3388.

Japanned Iron Side Pulleys.

Size.....inches	¾	1	1½	1¾	2	2½	3	4	5
Price.....per dozen	.38	.40	.48	.54	.72	1.08	1.60	4.00	6.90

Japanned and Galvanized Tackle or Awning Pulleys.

Size.....inches	¾	1	1¼	1½	1¾	2
Price, Single, Japanned.....per dozen	.32	.36	.44	.56	.76	1.00
Price, Double, Japanned.....per dozen	.46	.54	.64	.92	1.28	2.00
Price, Single, Galvanized.....per dozen	.44	.54	.70	1.00	1.40	2.20
Price, Double, Galvanized.....per dozen	.70	.84	.96	1.60	2.64	3.20

GATE HOOKS AND EYES; BRIGHT AND BRASS WIRE.

FIG. 3389.

Size.....inches	1½	2	2½	3	3½	4	4½	5
Price, Bright Wire.....per gross	4.75	5.75	6.75	8.00	9.50	10.50	14.00	17.00
Price, Brass Wire.....per gross	.....	25.00	30.00	40.00	.....	.....	.....	.....

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SCREW HOOKS.

BRIGHT WIRE.

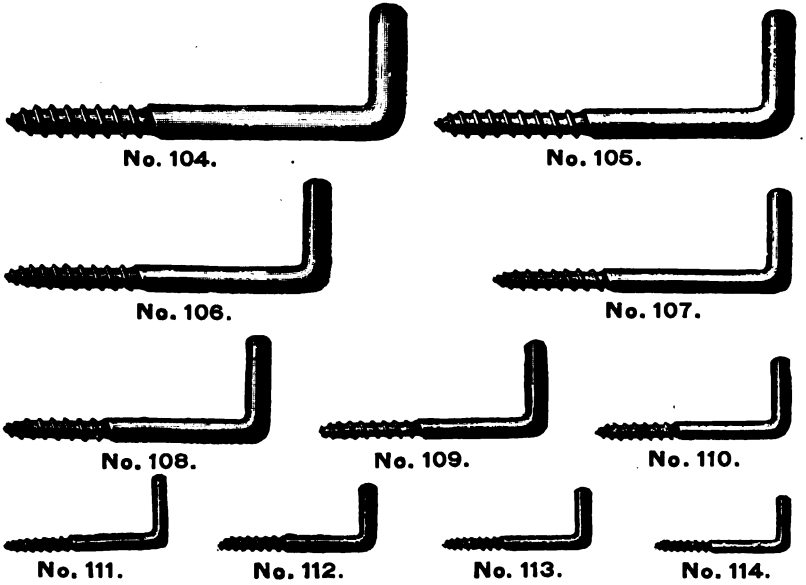

FIG. 3390.

Bright Wire Screw Hooks.

Number.....	104	105	106	107	108	109	110	111	112	113	114
Price...per gross	6.50	5.50	4.50	3.50	3.00	2.50	2.25	2.00	1.80	1.70	1.60

BRASS CUP HOOKS.

FIG. 3391.

Full Size.....inches	½	⅝	¾	⅞	1	1⅛	1¼	1½
Price.....per gross	3.75	3.85	4.00	4.50	5.25	7.00	9.00	11.00

BRASS SCREW HOOKS.

FIG. 3392.

Full Size.....inches	½	⅝	¾	⅞	1	1⅛	1¼
Price.....per gross	3.75	3.85	4.00	4.50	5.25	9.00	10.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND
1182

BRIGHT WIRE SCREW HOOKS.

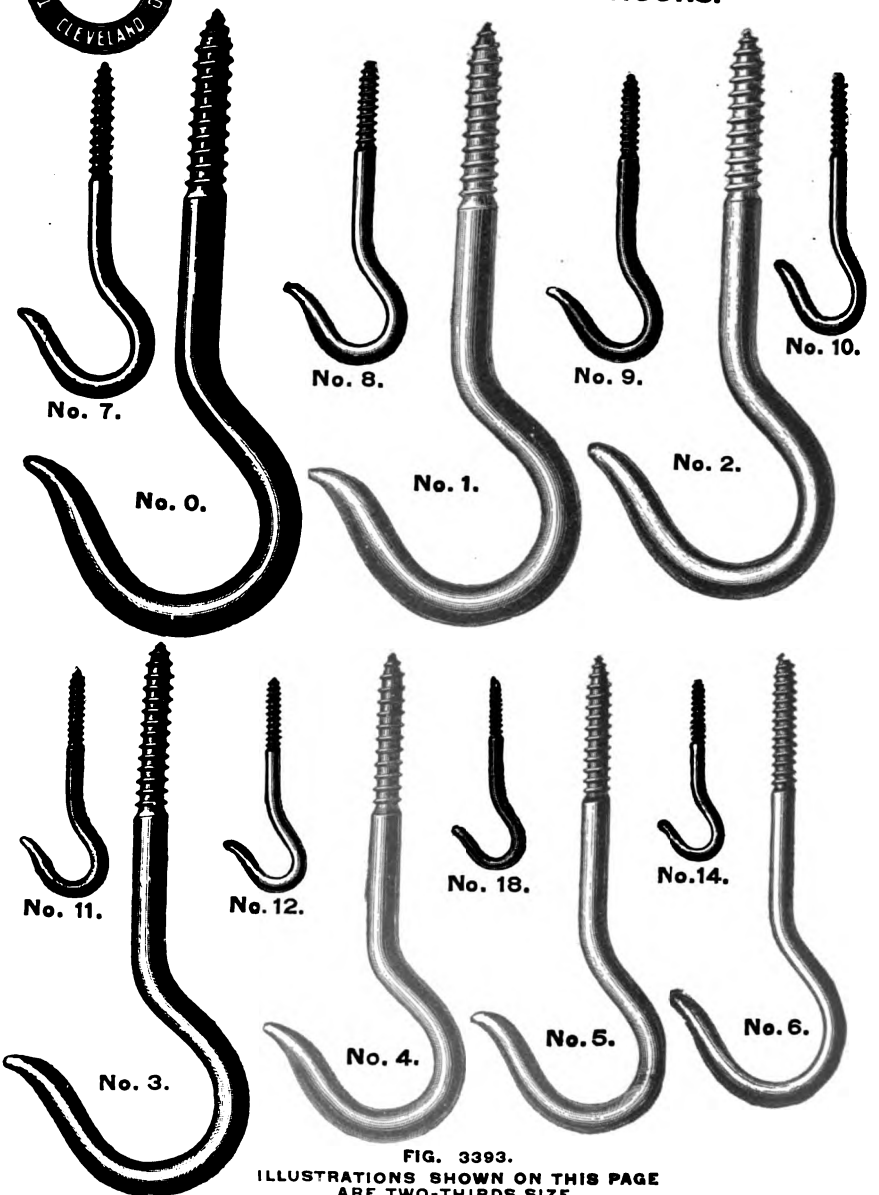

FIG. 3393.

ILLUSTRATIONS SHOWN ON THIS PAGE ARE TWO-THIRDS SIZE.

Number..	0	1	2	3	4	5	6	6½	7	8	9	10	11	12	13	14
Per Gross	15.00	12.00	10.00	8.00	6.50	5.50	4.50	4.00	3.50	3.00	2.50	2.25	2.00	1.80	1.70	1.60

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BRIGHT WIRE SCREW EYES.

ILLUSTRATIONS SHOWN ON THIS PAGE ARE TWO-THIRDS SIZE.

FIG. 3394.

Number	0	1	2	3	4	5	6	7	8	9
Price.....per gross	11.00	9.00	7.00	5.50	4.50	3.50	3.00	2.50	2.00	1.75
Number	10	11	12	13	14	104	105	106	107	108
Price.....per gross	1.50	1.30	1.20	1.10	1.05	4.50	3.50	3.00	2.50	2.00
Number	109	110	111	112	113	114	114½	204	205	206
Price.....per gross	1.75	1.50	1.30	1.20	1.10	1.05	1.05	4.50	3.50	3.00
Number	207	208	209	210	211	212	213	214	214½	.....
Price.....per gross	2.50	2.00	1.75	1.50	1.30	1.20	1.10	1.05	1.05	.....

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HANDLES, STAPLES AND HOOKS, ETC.

JAPANNED IRON SURFACE CHEST HANDLE.

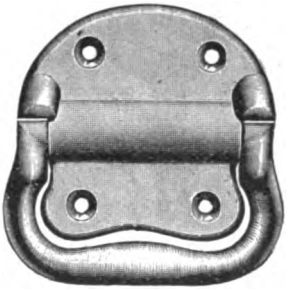

FIG. 3395.

JAPANNED IRON RIVETED CHEST HANDLE.

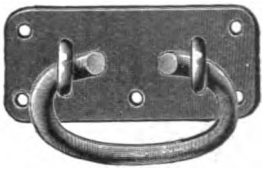

FIG. 3396.

Japanned Iron Chest Handles.

Size.....inches	3	3½	4	4½	4½	4¾
Price, Fig. 3395.....per dozen pairs	.72	1.00	1.20	.....	1.70	.....
Price, Fig. 3396.....per dozen pairs	.....	.....	.....	1.75	.....	2.25

WROUGHT STAPLE.

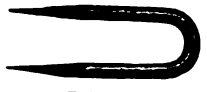

FIG. 3397.

WROUGHT HOOK AND STAPLE.

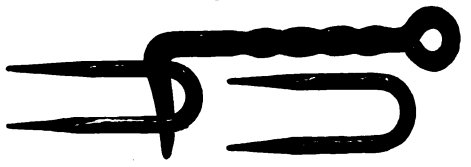

FIG. 3398.

Wrought Staples.

Size.....inches	1	1¼	1½	1¾	2	2½	3	3½	4
Price.....per gross	1.20	1.20	1.25	1.50	1.70	2.35	3.20	3.70	5.25

Price, Assorted, 1½, 1¾, 2, 2½ and 3 inch.....per gross | 2.00

Wrought Hooks and Staples.

Size.....inches	3	3½	4	4½	5	5½	6
Price.....per gross	8.00	9.00	10.00	11.00	12.00	13.00	14.00
Price, Extra Heavy....per gross	.....	.....	13.00	.....	.....	.....	19.00

WROUGHT HASP AND STAPLE.

FIG. 3399.

Size.....inches	6	7	8	9	10	12
Price.....per dozen	1.00	1.10	1.30	1.70	2.00	2.60
Price, with Hooks.....per dozen	1.40	1.60	1.80	2.20	2.50	3.84

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HINGE HASPS AND DOOR BOLTS.

HINGE HASP.

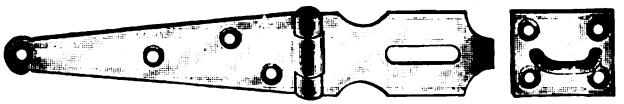

FIG. 3400.

Hinge Hasps.

Size ....inches	3	4½	6	8	10
Price....per dozen pairs	2.00	2.50	3.20	4.20	6.00

BARREL BOLT.

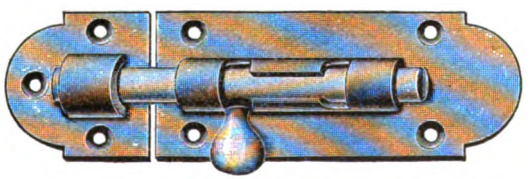

FIG 3401.

Cast Iron Barrel Bolts; Japanned Plate, Polished Bolt, Brass Knob.

Size .... inches	3	4	5	6
Price....per dozen	.75	.85	1.10	1.35

Wrought Steel Barrel Bolts; Japanned Plate, Polished Bolt, Brass Knob.

Size ....inches	2½	3	4	5	6
Price....per dozen	1.50	1.90	2.15	2.50	2.90

SQUARE DOOR BOLT.

FIG. 3402.

FIG. 3403.

Wrought Steel Door Bolts; Japanned Plate, Polished Bolt.

Size ....inches	4	5	6	7	8	10	12
Price....per dozen	2.50	2.65	2.85	3.75	4.00	6.50	7.00

Wrought Steel Door Bolts; Japanned Plate, Polished Bolt.

Size ....inches	8	10	12	14
Price, with Plate, Fig. 3402....per dozen	5.25	8.00	9.75	11.00

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HINGES AND BUTTS.

T HINGE.

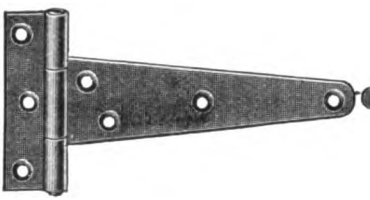

FIG. 3404.

STRAP HINGE.

FIG. 3405.

Light Wrought Steel, T and Strap Hinges.

Size.....inches	3	4	5	6	8	10
Price, T Hinges.....per dozen pairs	1.50	1.60	2.00	2.35	3.00	4.40
Price, Strap Hinges.....per dozen pairs	1.55	2.05	2.50	3.25	4.55	6.30

Extra Heavy Wrought Steel, T and Strap Hinges.

Size.....inches	4	5	Price, Per Pound.	6	8	10	12	14	16
Price, T Hinges..per dozen pairs	.....	4.90		.30	.29	.27	.27	.27	....
Price, Strap Hinges...per dozen pairs	3.15	4.30		.29	.27	.26	.26	.26	.26

LOOSE PIN BUTT.

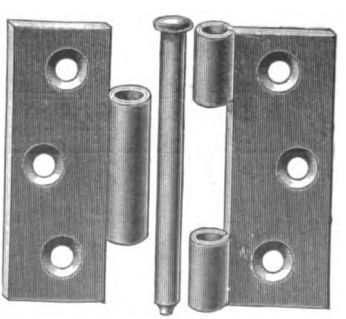

FIG. 3406.

LIGHT NARROW BUTT.

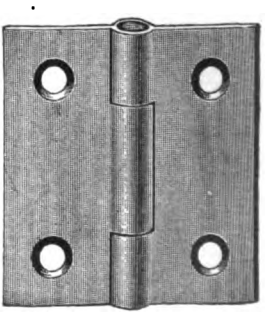

FIG. 3407.

Bright Steel, Loose Pin Butts.

Size.....inches	2 x 2	2x2½	2½x2	2½x2½	2½x3	3x2½	3 x 3	3x3½	3½x3	3½x3½
Price.....per dozen pairs	1.40	1.50	1.60	1.80	2.20	2.40	2.60	3.00	3.60	3.80

Size .....inches	3½x4	4x3½	4 x 4	4x4½	4½x4	4½x4½	5 x 5	5½x5½	6 x 6	.....
Price..... per dozen pairs	4.30	4.60	4.70	4.80	5.30	5.90	7.70	9.69	11.40	.....

Bright Steel, Light Narrow Butts.

Size.....inches	1	1¼	1½	1¾	2	2¼	2½	3
Price.....per dozen pairs	.40	.50	.65	.80	.90	1.05	1.10	1.45

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DRAWER LOCK. **LOCKS.** DRAWER LOCK.

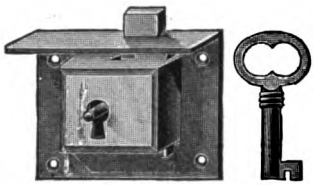

FIG. 3408.

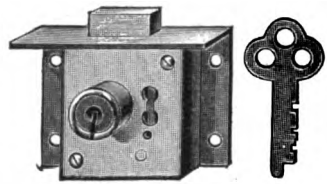

FIG. 3409.

Back Spring Steel Drawer Locks.

Price, 2 inches, $\frac{5}{8}$ inch from Selvedge to Key Pin; 1 Ward, 12 Keyed..per dozen	.88
Price, 2$\frac{1}{2}$ inches, Polished Cap; $\frac{5}{8}$ inch from Selvedge to Key Pin; 1 Ward, 12 Keyed..per dozen	.95

Secure Lever, Steel and Brass Drawer Locks.

Price, 1$\frac{1}{2}$ inches, Steel, Solid Box, $\frac{1}{2}$ inch from Selvedge to center of Cylinder, 3 Levers, 2 Nickel-plated Flat Steel Keys.....per dozen	5.00
Price, 1$\frac{3}{4}$ inches, Steel, Solid Box, $\frac{3}{4}$ inch from Selvedge to center of Cylinder, 2 Levers, 2 Nickel-plated Flat Steel Keys.....per dozen	4.50
Price, 1$\frac{3}{4}$ inches, Brass, otherwise same as above.....per dozen	5.00
Price, 2 inches, Steel, Broad Bolt, $\frac{7}{8}$ inch from Selvedge to center of Cylinder, for $\frac{7}{8}$ inch Wood, 2 Levers, 2 Nickel-plated Flat Steel Keys.....per dozen	5.00
Price, 2 inches, All Brass, otherwise same as above.....per dozen	5.50
Price, 2$\frac{1}{4}$ inches, Steel, Solid Box, Broad Heavy Bolt, $\frac{7}{8}$ inch from Selvedge to center of Cylinder, for $\frac{7}{8}$ inch Wood, 3 Levers, 2 Nickel-plated Flat Steel Keys.....per dozen	6.50
Price, 2$\frac{1}{4}$ inches, Brass, otherwise same as above.....per dozen	7.00
Price, 2$\frac{1}{4}$ inches, All Brass, otherwise same as above.....per dozen	7.50

WARDROBE LOCK.

FIG. 3410.

CHEST LOCK.

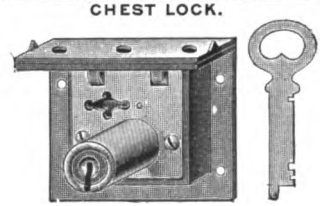

FIG. 3411.

Tumbler, Steel Cupboard and Wardrobe Locks.

Price, 2$\frac{1}{2}$x1$\frac{1}{4}$ inches, Solid Square Box, Bolt Shoots Right and Left, per dozen	1.50
Price, 3$\frac{1}{2}$x2 inches; Solid Square Box, Broad Bolt Shoots Right and Left, 1 Tumbler, 1 Ward .....per dozen	1.87

Double Link, Secure Lever Brass Chest Locks.

Price, 1$\frac{1}{2}$ inches, All Brass, Solid Box, Screwed, $\frac{3}{4}$ inch from Selvege to center of Cylinder, for $\frac{3}{4}$ inch Wood, 3 Levers, 2 Nickel-plated Flat Steel Keys.....per dozen	7.00
Price, 2 inches, All Brass, Solid Box, Screwed, $\frac{7}{8}$ inch from Selvedge to center of Cylinder, for $\frac{3}{4}$ inch Wood, 3 Levers, 2 Nickel-plated Flat Steel Keys.....per dozen	9.00
Price, 2$\frac{1}{2}$ inches, All Brass, Solid Box, Screwed, 1 inch from Selvedge to center of Cylinder, 3 Lengths in a Dozen, $\frac{3}{4}$, 1, 1$\frac{1}{4}$ inch Wood, 4 Levers, 2 Nickel-plated Flat Steel Keys.....per dozen	12.00
Price, 3 inches, All Brass, Solid Box, Screwed, 1$\frac{1}{8}$ inches from Selvedge to center of Cylinder, 3 Lengths in a Dozen, 1, 1$\frac{1}{4}$ and 1$\frac{1}{2}$ inch Wood, 4 Levers, 2 Nickel-plated Flat Steel Keys.....per dozen	14.00

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LOCKS.

MORTISE KNOB LOCK.

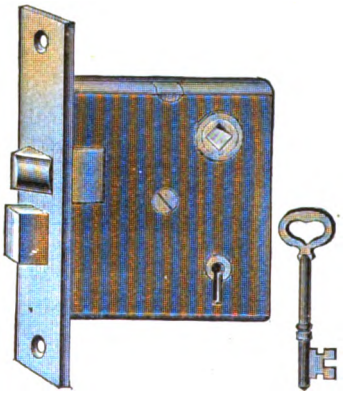

FIG. 3412.

UPRIGHT RIM KNOB LOCK.

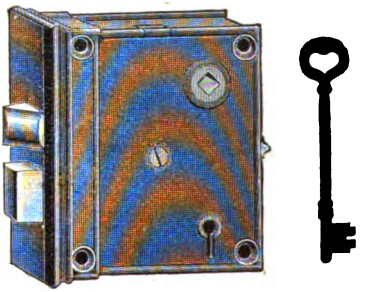

FIG. 3413.

	1 Key.	2 Keys.
Price, Mortise Knob Locks; 3¾x3¼ inches, Iron Bolts, Wrought Iron Front and Strike, 1 Tumbler, 6 Changes, Tinned Malleable Iron Key.....per dozen	1.80	1.95
Price, Mortise Knob Locks; same as above; Nickel-plated Steel Key.....per dozen	2.50	3.20
Price, Upright Rim Knob Locks; 4¼x3½ inches, Iron Bolts with Stop, 1 Tumbler, 12 Changes, Tinned Malleable Iron Key..per dozen	3.30	.....
Price, Upright Rim Knob Locks; same as above; Nickel-plated Steel Key.....per dozen	4.00	4.70

STANDARD NIGHT LATCH.

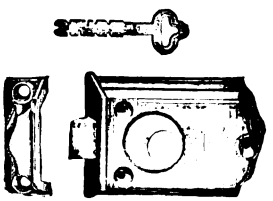

FIG. 3414.

RIM NIGHT LATCH.

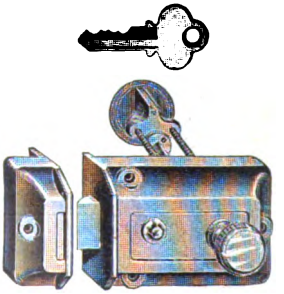

FIG. 3415.

Price, Standard Night Latches; 2⅝x3¾ inches, Reversible Bolt for Right or Left Hand Doors and either Swing. Adjustable to Doors, 1 to 2 inches thick; Brass Bolt, Bronze Escutcheon, two Strikers, and two Flat Steel Keys.....per dozen	11.00
Price, Rim Night Latches; 2½x2⅞ inches, Bronze Metal Bolt, Knob and Cylinder; three Flat Steel Keys.....per dozen	19.00
Price, Rim Night Latches; 2½x3⅜ inches same as above, Master Keyed..per dozen	25.00

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RIM DEAD LOCKS.

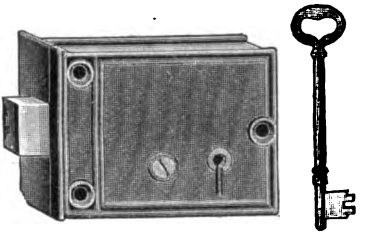

FIG. 3416.

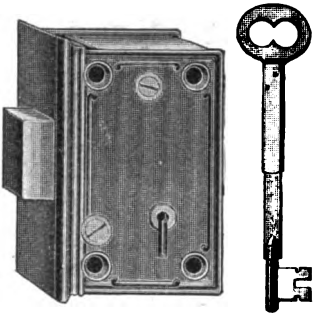

FIG. 3417.
4 x 2½ inches.

Rim Dead Locks with Iron Bolts.

	1 Key.	2 Keys
Price, 2 x 2¾ inches, Coppered Iron Key.....per dozen	1.30	.....
Price, 2¼ x 2¾ inches, 1 Tumbler, 12 Changes, Nickel Plated Steel Key...per dozen	2.00	.....
Price, 2⅜ x 3½ inches, 8 Changes, Coppered Iron Key.....per dozen	1.70	.....
Price, 2¾ x 3½ inches, 1 Tumbler, 12 Changes, Nickel Plated Steel Key....per dozen	2.40	3.10
Price, 2⅜ x 3½ inches, 3 Tumbler, 36 Changes, Nickel Plated Steel Key.....per dozen	5.40	6.10
Price, 4 x 2½ inches, 1 Tumbler, 24 Changes, Nickel Plated Steel Folding Key....per dozen	.....	9.00
Price, 4 x 2½ inches, 3 Tumbler, 36 Changes, Nickel Plated Steel Folding Key....per dozen	.....	11.00

DOOR KNOBS.

MINERAL.

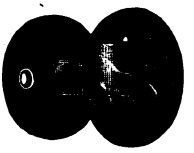

FIG. 3418.

JET.

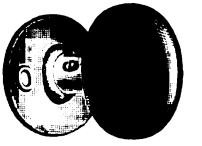

FIG. 3419.

Mortise or Rim, Mineral and Jet Door Knobs.

Price, 2¼ inch Mineral Knobs, Japanned Shanks and Roses .....per dozen pairs	1.20
Price, 2½ inch Jet Knobs, Japanned Shanks and Roses.....per dozen pairs	1.40

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PADLOCKS.

SOLID STEEL PADLOCKS WITH FOUR CHANGES; SPRING SHACKLE, SELF-LOCKING, BLACK JAPANNED.

FIG. 3420.
Nos. 262 to 266.

FIG. 3421.
Nos. 272 to 314.

FIG. 3422.
Nos. 352 to 355.

Number.	Size, Inches.	DESCRIPTION.	PRICE, PER DOZEN.	
			1 Key.	2 Keys.
262	2¼	Brass Drop	3.25	3.75
263	2¼	Brass Drop and Raised Bushing	3.40	3.90
281	2¼	Engraved Brass Drop and Brass Bushing	4.20	4.70
264	2½	Brass Drop	4.00	4.50
265	2½	Brass Drop and Bushing	4.40	5.00
266	2½	Engraved Brass Drop and Brass Bushing	4.65	5.50
272	2½	Engraved Brass Drop and Brass Bushing	6.25	7.50
270	2¾	Brass Drop and Bushing	8.75	10.00
331	2¼	Engraved Brass Drop and Brass Bushing	5.45	6.45
314	2½	Engraved Brass Drop and Brass Bushing	6.70	7.70
352	2¼	Same as No. 263, with 8 inch Chain	5.20	6.00
351	2½	Same as No. 272, with 8 inch Chain	8.35	9.30
354	2¾	Same as No. 270, with 8 inch Chain	11.25	12.50
364	2¼	Same as No. 331, with 8 inch Chain	8.00	9.00
355	2½	Same as No. 314, with 8 inch Chain	9.20	10.20

Numbers 331, 314, 364 and 355 have Flat Steel Keys; all others Drilled Malleable Iron Keys.

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PADLOCKS.

HARVARD.

FIG. 3423.
Nos. 24 to 28.

HIGHEST GRADE.

FIG. 3424.
No. 58.

FIG. 3425.
No. 59.

Harvard Padlocks.

Number.	Size, Inches.	DESCRIPTION.	Price, 24 Keyed, Per Dozen.
24	2	Solid Real Bronze 4 Levers	5.25
25	2½	Solid Real Bronze 6 Levers	7.40
26	2½	Same as No. 25 with 9 inch Tinned Coil Chain	9.30
27	2½	Large Elongated Shackle, 6 Levers	8.25
28	2½	Same as No. 27 with 9 inch Tinned Coil Chain	10.25

Highest Grade Padlocks.

Extra Strong Shackle and Locking Bolts, All Brass inside work, Dust Proof Plunger Closing Shackle Opening, Cylinder Key Hole Guide, Spring Shackle, Self Locking, Two Nickel-plated Flat Steel Keys each.

Number.	Size, Inches.	DESCRIPTION.	Price, 24 Keyed, Per Dozen.
58	2	Solid Real Bronze	9.75
59	2	Same as No. 58 with 9 inch Tinned Coil Chain	11.75

RAILROAD SWITCH PADLOCK; CAST BRONZE GUN METAL, SPRING SHACKLE, SPRING DROP COVER.

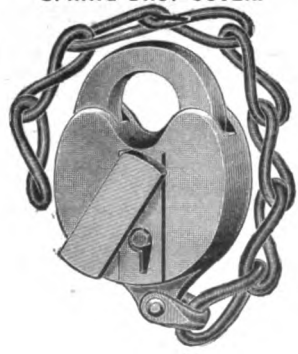

FIG. 3426.

Number.	Size, Inches.	DESCRIPTION.	PRICE, PER DOZEN.	
			12 Keyed.	24 Keyed.
637	2½x4x⅞	3 Tumblers, All Brass Inside Work, Japanned Chain	18.75	21.00

Fig. 3426 can be furnished with all keys alike, 50 changes.

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DOWEL PINS AND FILLET.

BRASS DOWEL PINS.

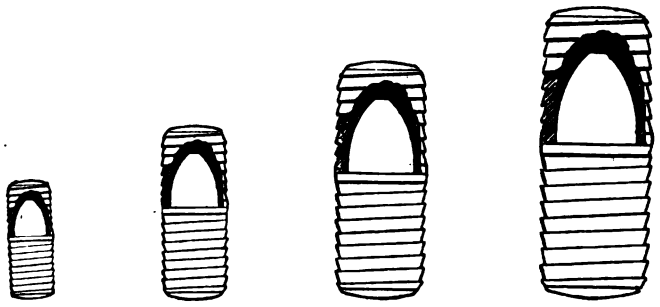

FIG. 3427.

Number	1	2	3	4
To Fit Hole.....inches	3/16	5/16	7/16	9/16
Size of Pin.....inches	1/8	1/4	5/16	7/16
Price.....per 100 pairs	2.50	3.50	5.50	8.00

Illustrations shown are full size.

Brass Dowel Pins are threaded so they may be driven or screwed into place and can be removed at any time by unscrewing. Made of a size that fits holes bored by Jennings bits, viz.: 3/16, 5/16, 7/16 and 9/16. Where hard wood is used for patterns the threaded dowel pins are particularly desirable as they can be screwed into place when it is not so easy or safe to drive them.

They are made so that the upper half of the pattern frees itself as soon as it is well started.

LEATHER FILLET.

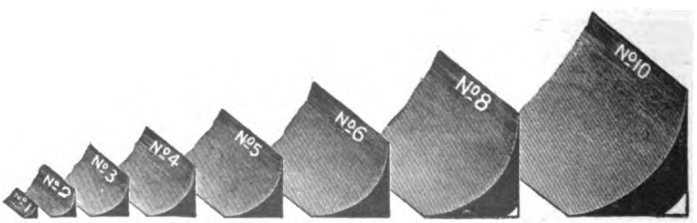

FIG. 3428.

Radius.....inches	1/16	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1
Width of Flat Face...inches	3/32	1/16	5/32	1/8	1/4	3/16	1/4	5/16	1 1/32	1 3/32	1 1/16
Price.....per 100 feet	1.00	1.50	2.00	2.50	3.00	3.50	4.00	5.00	6.00	7.00	8.00

Illustrations shown are full size sectional view.

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THE W. M. PATTISON SUPPLY CO. 1193 CLEVELAND

LADDERS.

COMMON.

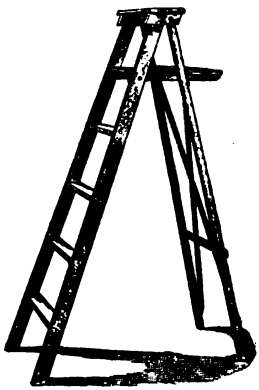

FIG. 3429.

COLUMBIA.

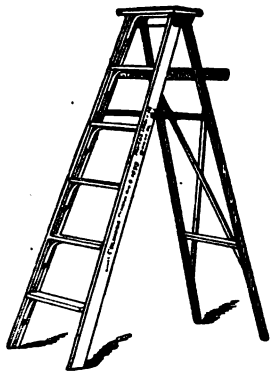

FIG. 3430.

Common.

Number	1	2	3	4	5	6
Length.....feet	4	5	6	7	8	10
Price.....each	.95	1.05	1.15	1.25	1.35	1.65

Columbia.

Number	10	11	12	13	14	15	16
Length.....feet	4	5	6	7	8	10	12
Price.....each	3.00	3.50	4.00	4.50	5.00	6.00	9.00

LONG LADDER.

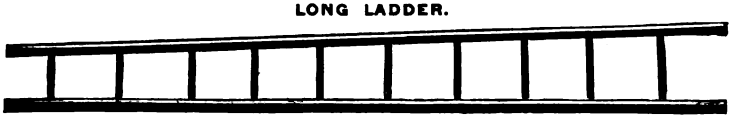

FIG. 3431.

EXTENSION LADDER.

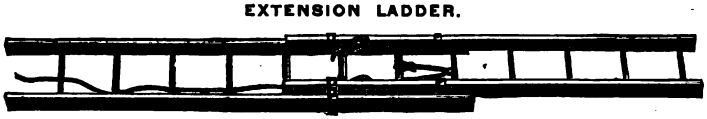

FIG. 3432.

Long Ladders.

Length.....feet	8	9	10	12	14	16	18	20	22	24
Price.....each	1.60	1.80	2.00	2.50	3.00	3.50	4.00	4.50	5.00	6.00

Pulley Extension Ladders.

Length.....feet	22	26	28	32	36	42	46	50
Price.....each	8.00	10.00	10.50	12.00	14.00	17.00	20.00	23.00

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

SCAFFOLD JACKS AND HORSES.

ADJUSTABLE SCAFFOLD JACK.

FIG. 6433.

Adjustable Scaffold Jacks.

Number	1	2	3	4	5	6	7	8
Height ..... feet	2½	3	4	5	6	7	8	10
Extension ..... feet	4	5	6	8	9	11	13	16
Price, Per Jack ..... each	2.40	2.50	2.80	3.20	3.60	4.00	4.40	5.00

The above illustration shows two Jacks and Tee Beam.
Price of Tee Beam, 25 cents net per running foot.

ADJUSTABLE FOLDING SCAFFOLD HORSE.

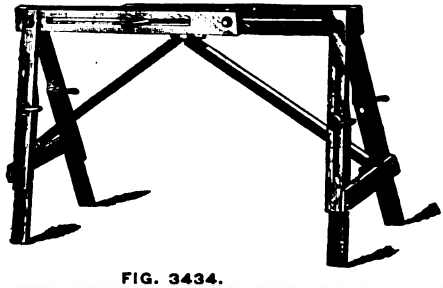

FIG. 3434.

Adjustable Folding Scaffold Horses.

Number.	Stands, Feet.	Raises To, Feet.	EXTENSION. FROM Feet.	FROM Inches.	TO Feet.	TO Inches.	Price, Each.
A	1½	2	3	9	4	6	3.25
B	2½	4	4	.....	6	.....	4.00
C	3	5	4	4	6	6	4.75
D	4	6	4	4	6	6	5.75
E	5	8	4	8	7	.....	7.00
F	6	9	4	8	7	.....	8.00
G	7	10	5	4	8	.....	9.00
H	8	12	6	.....	9	.....	12.00
K	10	16	8	.....	12	.....	15.00

For longer extension we can furnish an extra Beam, which extends Numbers A to E inclusive, to 10 feet, and Numbers F to H, inclusive, to 12 feet, Price, 2.50 extra.

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THE W. M. PATTISON SUPPLY CO. 1195 CLEVELAND

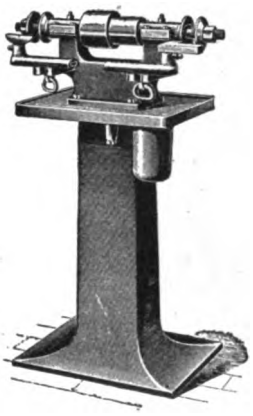

FIG. 3435.
No. 4.

FIG. 3436.
No. 5.

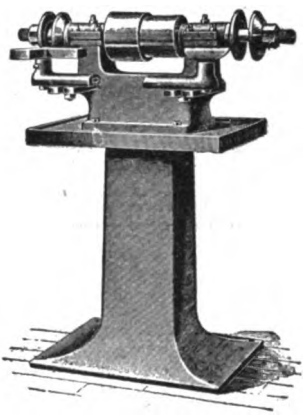

FIG. 3437.
No. 6.

Number	1 Buff.	1	2	3	4	5	6
Diameter of wheels recommended.....inches	8	8	10	12	14	16	20
Face of Wheel.....inches	.....	.....	1¾	1¾	2½	3½	3½
Distance between wheels .....inches	8	8	10¾	13	17¼	20	24
Length of bearings .....inches	2¼	2¼	3	4¼	4½	5¼	5½
Diameter of Spindle in bearings.....inches	¾	¾	⅞	1 1/16	1¼	1⅜	1⅝
Diameter of Spindle between flanges .....inches	½	½	¾	1	1⅛	1¼	1½
Diameter of Pulley on Spindle .....inches	2¼	2¼	3	3½	3 and 4	4 and 5	5 and 6
Width of Pulley .....inches	2	2	2¼	3¼	3¼	3¼	4¼
Height from table to center of Spindle...inches	5¼	5¼	6	6½	8	9	10½
Height from floor to center of Spindle ...inches	38½	38½	38½	38½	37	36	36
Net weight, complete.....pounds	170	170	185	210	300	365	475
T. & L. Pulleys on Countershaft.....inches	3½ x 1¾	3½ x 1¾	2½ x 5	6 x 3¼	6½ x 3¼	7½ x 3¼	9 x 3¾
Speed of Countershaft..... revolutions	740	740	575	435	485	500	500
Price with Column and Countershaft .....each	26.00	26.00	30.00	40.00	50.00	65.00	74.00
Price of Head only .....each	10.00	10.00	12.00	16.00	20.00	33.00	40.00
Price of Column .....each	9.00	9.00	10.00	14.00	15.00	16.00	16.50
Price of Countershaft.....each	7.00	7.00	8.00	10.00	15.00	16.00	17.50

Above prices do not include Emery Wheels.

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THE W. M. PATTISON SUPPLY CO. 1196 CLEVELAND

VALVE RESEATING MACHINES.

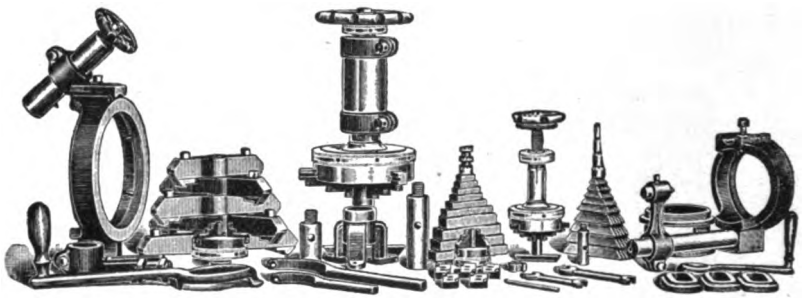

FIG. 3438.

Valve Reseating Machines.

Number	3	4	6	9
Repairs Valves.....inches	¼ to 3	¼ to 4	¼ to 6	¼ to 9
Price.....each	75.00	90.00	125.00	175.00

For Reseating all Flat and Taper Seated Valves from ¼ to 9 inches inclusive.

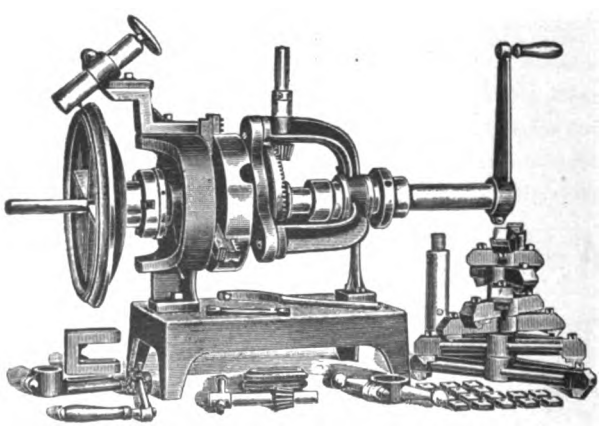

FIG. 3439.

Valve Reseating Machines and Disc Cutter.

Price.....each	250.00

For Reseating All Flat and Taper Seated Valves and recutting the Discs from 4 to 12 inches inclusive.

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THE W. M. PATTISON SUPPLY CO. 1197 CLEVELAND

Machinery Department

OF

THE W. M. PATTISON SUPPLY COMPANY

OPERATING UNDER THE NAME OF

The W. M. Pattison Machinery Company.

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THE W. M. PATTISON SUPPLY CO. 1198 CLEVELAND

LATHES.

12 INCH HENDEY-NORTON TOOL ROOM LATHE.

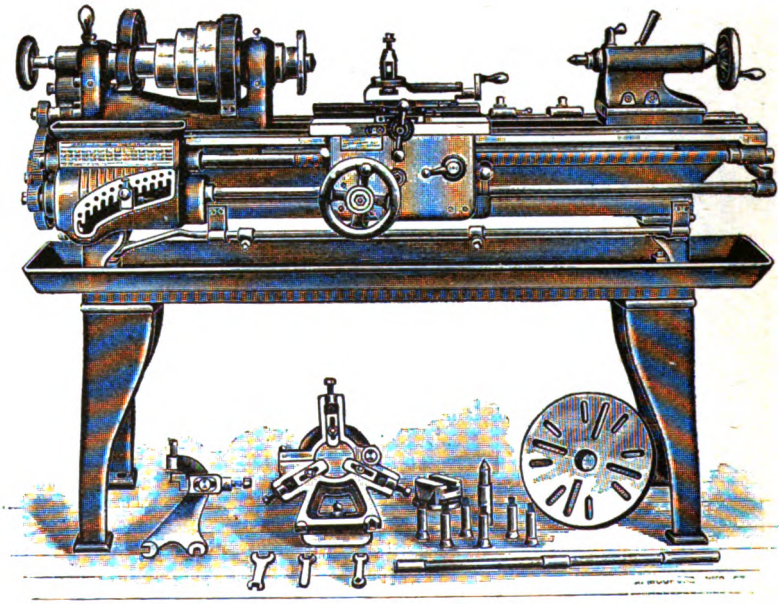

FIG. 3440.

We Represent the Following Manufacturers:

The Hendey Machine Co.

12, 14 and 16 inch Swing, Tool Room Lathes.

W. F. and John Barnes Co.

9, 11 and 13 inch Swing, Screw Cutting Lathes.

The Seneca Falls Manufacturing Co.

9, 11 and 14 inch Swing, Screw Cutting Lathes.

Sebastian Lathe Co.

9, 10, 13, 14 and 15 inch Swing, Screw Cutting Lathes.

Prices and Descriptive Matter on Application.

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LATHES.

THE W. M. PATTISON SUPPLY CO. 1199 CLEVELAND

32 INCH HENDEY-NORTON LATHE.

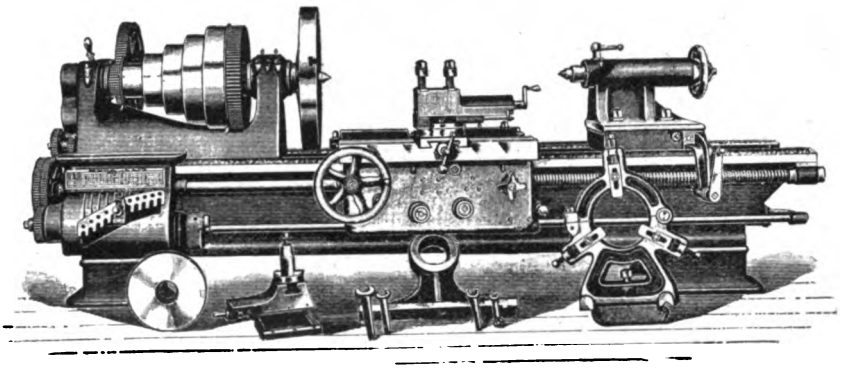

FIG. 3441.

We Represent the Following Manufacturers:

The Hendey Machine Co.

14, 16, 18, 20, 24 and 32 inch Swing, Screw Cutting Lathes.

The New Haven Manufacturing Co.

18, 21, 24, 28, 32, 38, 45, 50 and 60 inch Swing, Screw Cutting Lathes.

The Bradford Machine Co.

14, 16, 18, 21, 25, 28, 31, 36 and 42 inch Swing, Screw Cutting Lathes.

Draper Machine Tool Co.

14, 16, 18, 20, 22, 24, 27, 30, 32 and 42 inch Swing, Screw Cutting Lathes.

Pittsburg Machine Tool Co.

26, 32, 38, 42, 48, 60 and 72 inch Swing, Screw Cutting Lathes.

Prices and Descriptive Matter on Application.

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THE W. M. PATTISON SUPPLY CO. 1200 CLEVELAND

SHAPERS.

24 INCH HENDEY FRICTION SHAPER.

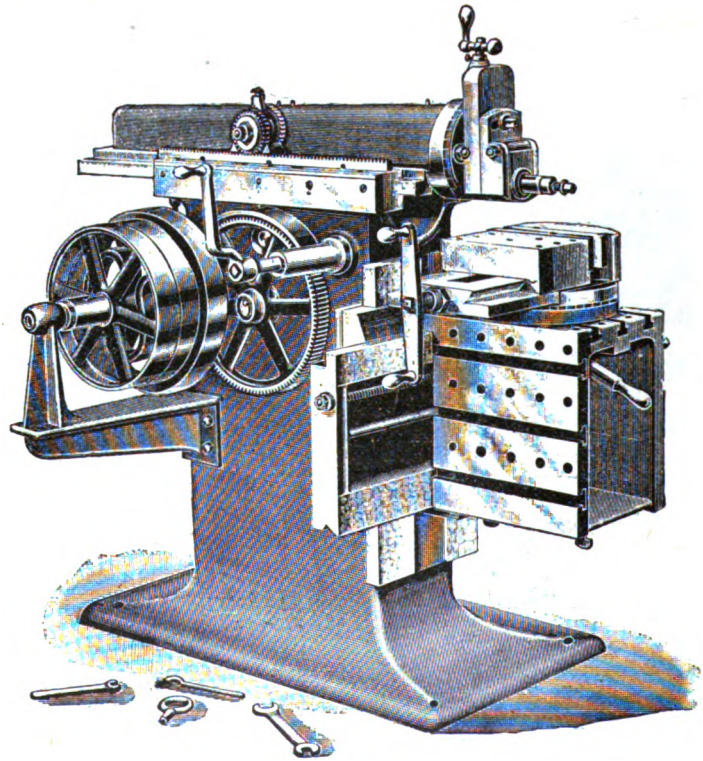

FIG. 3442.

We Represent the Following Manufacturers:

The Hendey Machine Co.
15, 20, 21 and 28 inch Pillar Shapers.

The Cincinnati Shaper Co.
16 inch Single Geared Crank Shapers.
16, 20 and 24 inch Back Geared Shapers.
26 and 30 inch Triple Geared Rack Shapers.

The Ohio Machine Tool Co.
16, 18 and 22 inch Improved Crank Shapers.
21 and 28 inch Triple Geared Shapers.

Barker and Chard.
18 and 24 inch Crank Shapers.

Prices and Descriptive Matter on Application.

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THE W. M. PATTISON SUPPLY CO. 1201 CLEVELAND

MORTON MANUFACTURING CO.'S DRAW CUT SHAPERS.

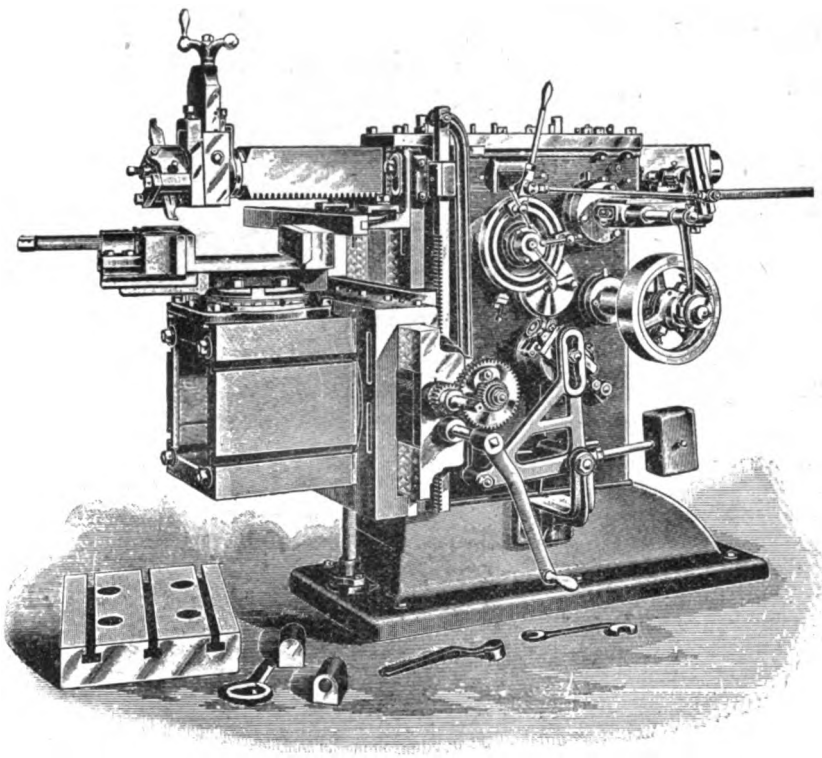

FIG. 3443.

Stroke of Machine	inches	24	30	36	42	48
Feed of Tool Block	inches	7	9	10	10	12
Horizontal Movement of Table	inches	24	30	36	42	50
Vertical Movement of Table	inches	15	17	17	18	20
Surface of Table	inches	16 x 24	20 x 30	24 x 36	24 x 42	28 x 48
Will admit between Table and Ram	inches	14	16	16	16	18
Pulleys on Countershaft	inches	10 x 4	12 x 4	14 x 5	14 x 5	14 x 5
Revolutions of Countershaft	inches	250	250	260	260	260
Weight, gross	pounds	4570	5700	8300	8600	9000
Weight, net	pounds	4003	5025	7338	7600	8000

Prices and Descriptive Matter on Application.

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THE W. M. PATTISON SUPPLY CO. 1202 CLEVELAND

PLANERS.

30 X 30 X 8 INCH WOODWARD AND POWELL NEW MODEL PLANER.

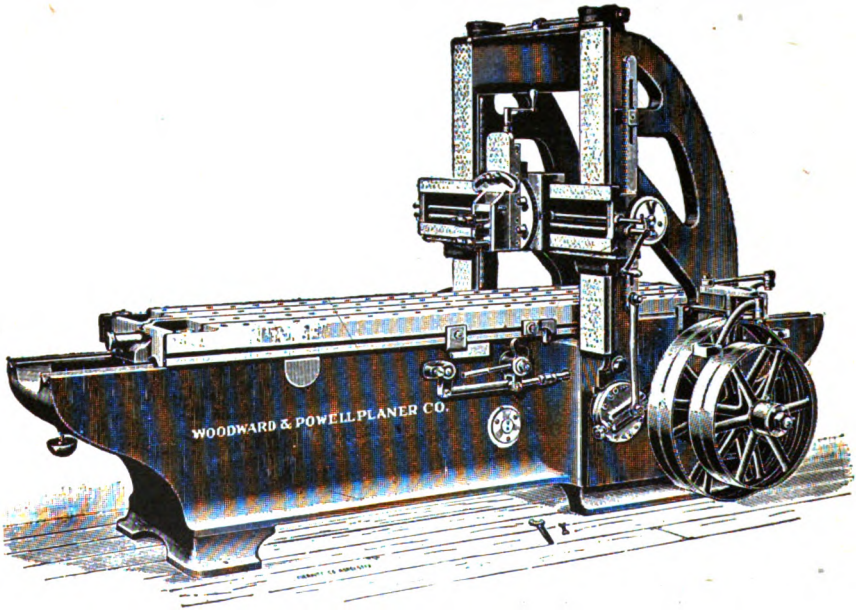

FIG 3444.

We Represent the Following Manufacturers:

Woodward and Powell Planer Co.

24, 30, 36, 42, 48, 60, 72, 84, 96, 108 and 120 inch Square Planers.

Whitcomb Manufacturing Co.

17, 22, 24, 26, 30, 36, 42 and 48 inch Square Planers.

The Ohio Machine Tool Co.

24, 27, 30, 33, 36 and 38 inch Square Planers.

The New Haven Manufacturing Co.

20, 24, 28, 34, 40, 50 and 60 inch Square Planers.

Prices and Descriptive Matter on Application.

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MILLING MACHINES.

THE W. M. PATTISON SUPPLY CO. 1903 CLEVELAND

We Represent the Following Manufacturers:

The Hendey Machine Co.

Universal Milling Machines.
Plain Milling Machines.
Lincoln Pattern Milling Machines.

The Kempsmith Manufacturing Co.

Hand Milling Machines.
Universal Milling Machines.
Plain Milling Machines.
Lincoln Pattern Milling Machines.

Prices and Descriptive Matter on Application.

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THE W. M. PATTISON SUPPLY CO. CLEVELAND

DRILL PRESSES.

25 INCH BARNES DRILL; SELF FEED, BACK GEARS.

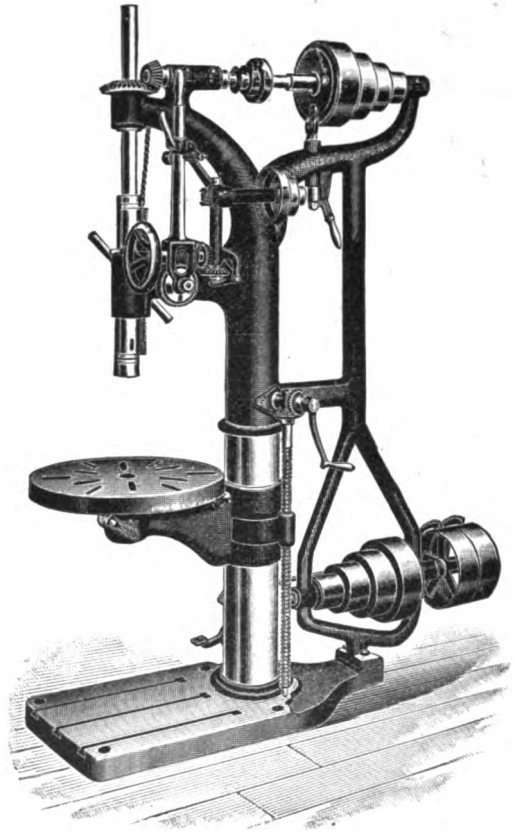

FIG. 3445.

We Represent the Following Manufacturers:

W. F. and John Barnes Co.

8 Inch Bench Friction Drills.
10 Inch Upright Friction Drills.
15 Inch Upright; Lever or Wheel Feed Drills.
20 Inch, Round or Square Base Drills with Screw or Lever Feed.
20 Inch, Round or Square Base Drills with Back Gear and Self Feed.
22½ and 25 Inch Drills, Screw or Lever Feed.
22½ and 25 Inch Drills, with Power Feed and Back Gears.
22 and 26 Inch Drills, with Power Feed, Sliding Head and Back Gears.
28, 34, 42 and 50 Inch Drills with Power Feed, Sliding Head and Back Gears.

Dwight Slate Machine Tool Co.

1, 2, 3 and 4 Spindle Sensitive Drills.

Prices and Descriptive Matter on Application.

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THE W. M. PATTISON SUPPLY CO. 1205 CLEVELAND

MULTIPLE SPINDLE DRILLS.

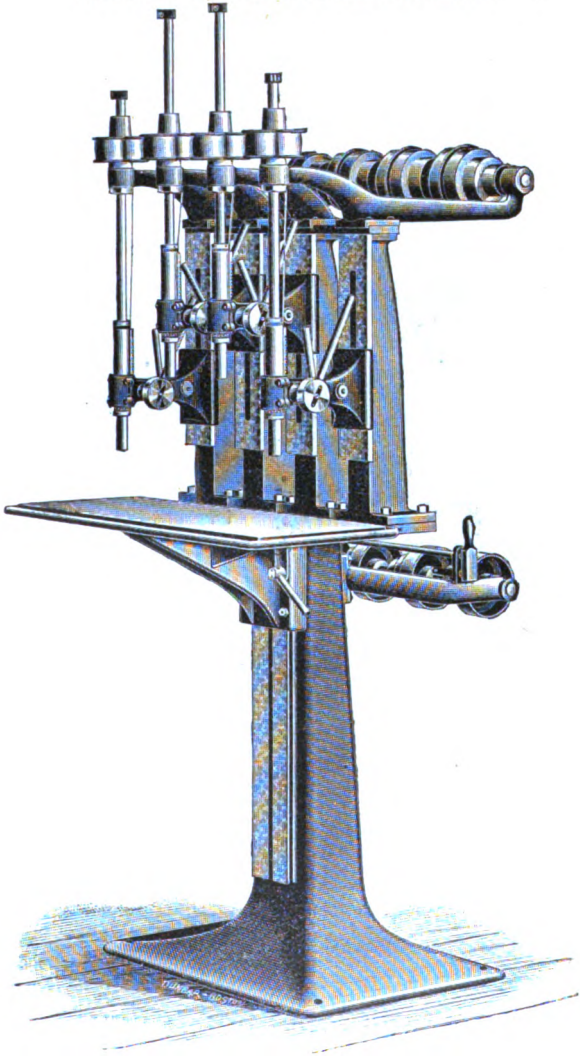

FIG. 3446.

Manufactured by Foote, Burt and Co.

2 to 6 Spindle Sensitive Drills, With and Without Power Feed.
2 to 12 Spindle Multiple Drills, With and Without Power Feed.
2 to 12 Spindle Universally Adjustable Drills.
4, 6 and 8 Spindle Rail Drills.

Prices and Descriptive Matter on Application.

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THE W. M. PATTISON SUPPLY CO. 1206 CLEVELAND

RADIAL DRILLS.

7 FOOT ARM RADIAL DRILL, ELECTRIC DRIVEN.

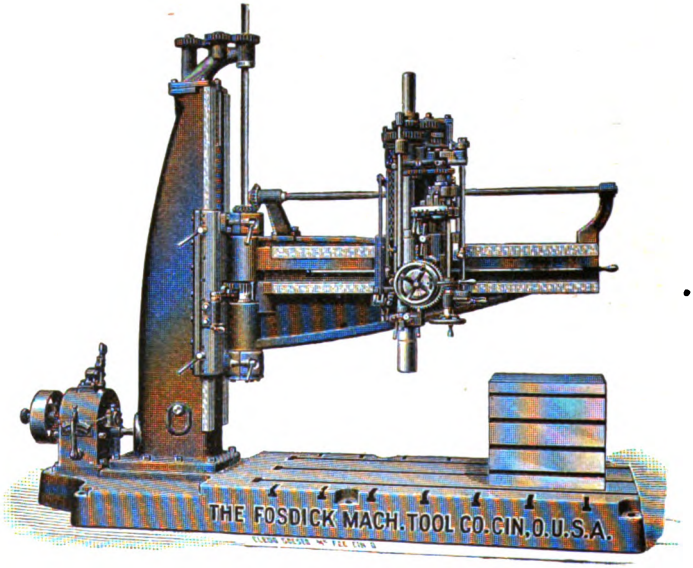

FIG. 3447.

We Represent the Following Manufacturers:

The Fosdick Machine Tool Co.

2½, 3, 4, 5, 6, 7 and 8 Foot, Arm Radial Drills.

3 Foot Arm Radial Drills with Plain, Swiveling and Round Tables.

5 and 6 Foot Arm Radial Drills, Full Universal.

6 Foot Arm Radial Drills, Special, for Extra Heavy Work.

The William E. Gang Co.

2½, 3, 3½ and 4 Foot Radial Drills.

Prices and Descriptive Matter on Application.

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THE W. M. PATTISON SUPPLY CO. 1207 CLEVELAND

LUCAS MACHINE TOOL CO.'S

Power Forcing Presses.

30 INCH SIZE.

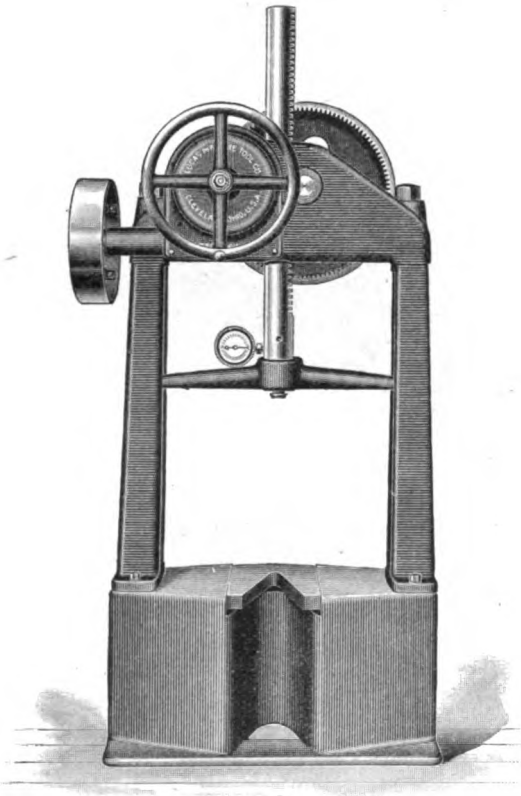

FIG. 3448.

Size, Inches.	Distance Between Housing, Inches.	Maximum Distance, Base to End of Ram Including Hydraulic Gauge, Inches.	Maximum Distance Base to End of Ram Without Hydraulic Gauge, Inches.	Pressures Hydraulic Gauge will Register Up to, Tons.	Diameters will Take Through the Base, Inches.	Driving Pulley, Inches.	Width of Belt, Inches.	Speed of Pulley, Revolutions Per Minute.	Weight, Pounds.
24	25	33	36	15	1 to 5	12	3	240	1600
30	30	33	36	30	1 to 6	14	3½	240	2300

Prices and Descriptive Matter on Application.

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THE W. M. PATTISON SUPPLY CO. 1208 CLEVELAND

ADJUSTABLE PRESSES.

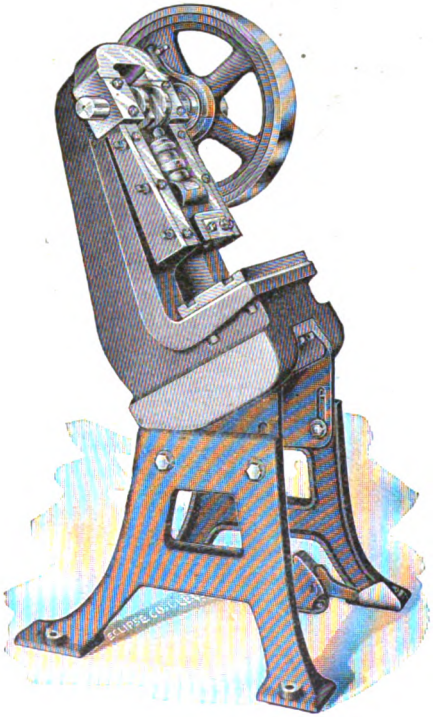

FIG. 3449.

Waterbury Adjustable, Inclinable Presses.

Built in five sizes without Back Gearing and three sizes with **Back Gearing.**

Weights ranging from 150 to 6000 pounds.

Prices and Descriptive Matter on Application.

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THE W. M. PATTISON SUPPLY CO. 1209 CLEVELAND

LUCAS MACHINE TOOL CO.'S

Precision Horizontal Boring, Drilling and Milling Machines.

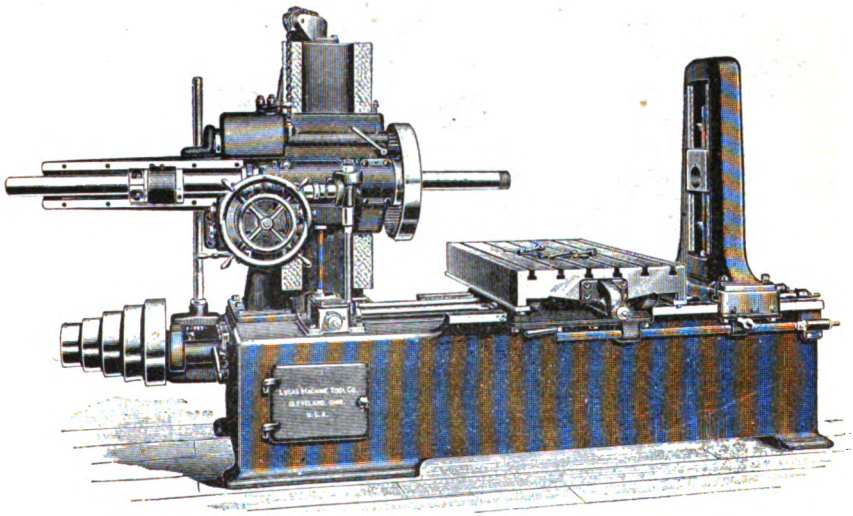

FIG. 3450.

No. 2.

Number.	Diameter of Boring Bar, Inches.	Feed of Boring Bar, Inches.	Taper Hole in End of Bar, Morse Number.	Size of Table, Inches.	Automatic Cross Feed to Table, Inches.	Maximum Distance, Top of Table to Center of Bar, Inches.	Maximum Distance, Face Plate to Yoke, Inches.	Countershaft Pulleys, Inches.	Speed of Countershaft, Revolutions Per Minute.	Weight, Pounds.
1	2¼	24	4	18 x 42	30	18	54	12 x 3½	240	5000
2	3¼	24 to 48	5	30 x 48	34	26	66	14 x 4½	250	10000

Prices and Descriptive Matter on Application.

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THE W. M. PATTISON SUPPLY CO. 1210 CLEVELAND

ACME SINGLE BOLT CUTTERS.

Class A.

2 INCH SINGLE BOLT CUTTER, CLASS A.

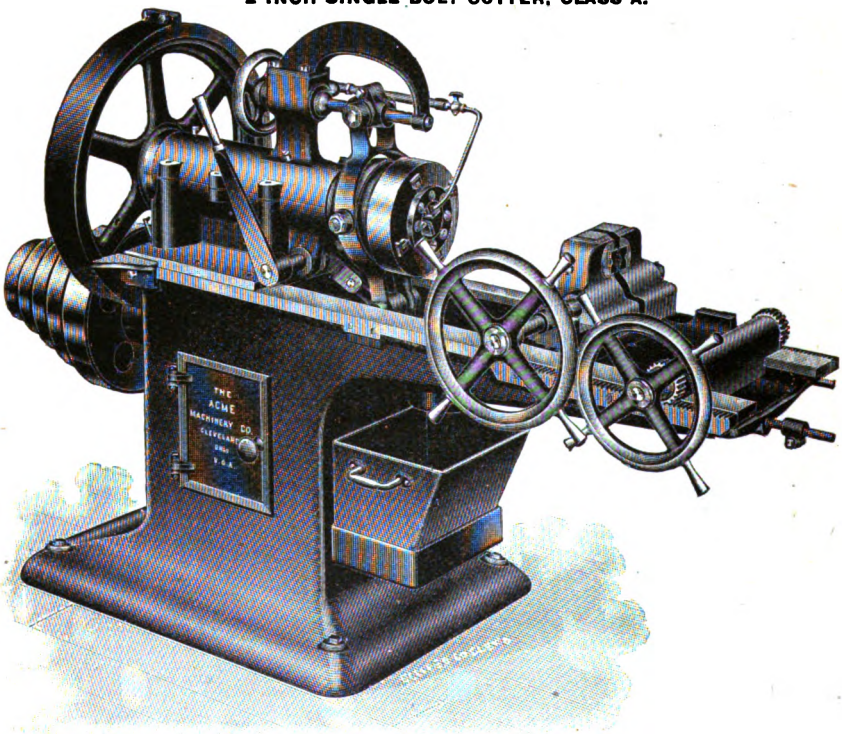

FIG. 3451.

Sizes will Thread and Tap; R. or L. Hand, Inches.	Number of Dies and Taps Furnished.	Diameter of Cone, Inches.	Belt, Inches.	Pulleys, Inches.	Speed of Countershaft, Revolutions Per Minute.	Geared.
¼ to ½	5	5¼, 7¼, 9¼	2½	16 x 4	200	.....
¼ to 1	7	8, 10, 12	3	16 x 4	250	3½ to 1
⅜ to 1¼	8	8, 10, 12	3	16 x 4	225	4½ to 1
⅜ to 1½	9	8, 10, 12, 14	3	16 x 4	225	4½ to 1
⅜ to 2	11	8,10,12,14,16	3	16 x 4	225	6¼ to 1
½ to 2¼	12	8,10,12,14,16	3	16 x 4	225	6¼ to 1
½ to 2½	13	8, 10, 12, 14	3	16 x 4	225	27¼ to 1
½ to 3	13	8, 10, 12, 14	3	16 x 4	225	27¼ to 1
½ to 3½	15	8, 10, 12, 14	3	16 x 4	225	27¼ to 1
1 to 4	13	9, 11, 13, 15	4	16 x 4	200	27¼ to 1
1 to 5	15	9, 11, 13, 15	4	16 x 4	200	27¼ to 1
1 to 6	.....	9, 11, 13, 15	4	16 x 4	200	27¼ to 1

Furnished with or without Leader Screws.
Prices and Descriptive Matter on Application.

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THE W. M. PATTISON SUPPLY CO. 1211 CLEVELAND

HIGLEY COLD METAL SAWS.

CAMBRIA SAW.

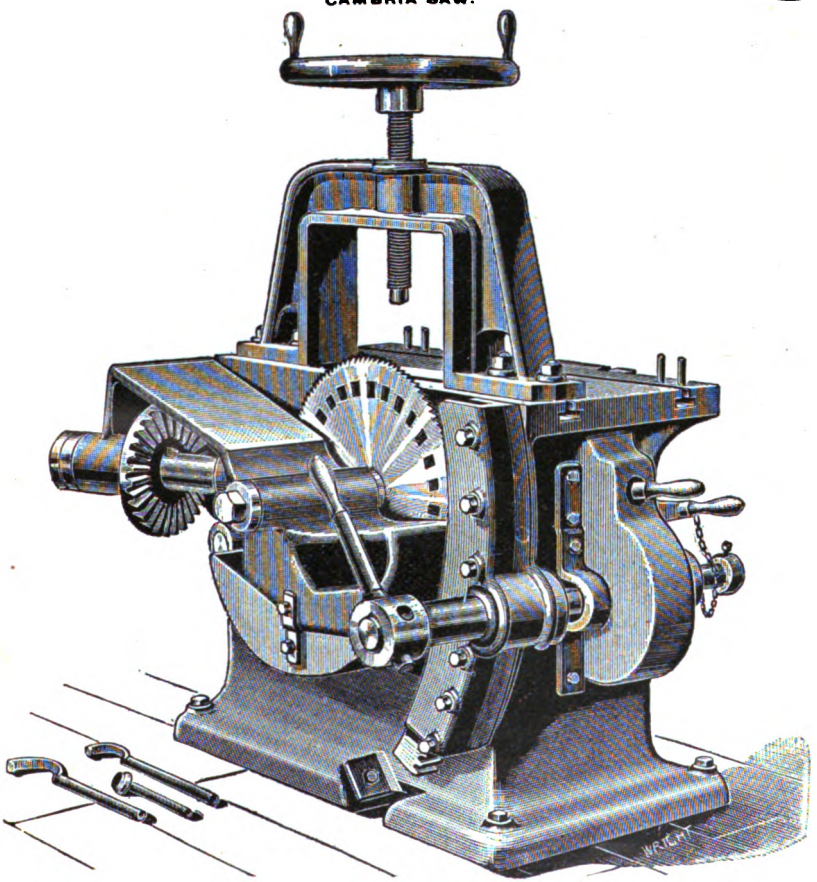

FIG. 3452.

Number.	Capacity, Straight Cut, Inches.				Capacity, 45° Angle, Inches.				Dimensions of Saw, Inches		Horse Power, Required.
	Round.	Square.	I Beam Flat.	Angle Iron.	Round.	Square.	I Beam Flat.	Angle Iron.	Diameter.	Thickness.	
5	5	4½	8	6	5	4	4	4	13½	⅛	1½
2	7	6½	12	8	6½	5½	7	8	18	3/16	3
Cambria.	8	7	15	8	7½	6½	8	6	20	3/16	4

Bench Saws; to cut up to 3 inches in diameter.
Prices and Descriptive Matter on Application.

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THE W. M. PATTISON SUPPLY CO. 1212 CLEVELAND

BRADLEY RUBBER CUSHIONED HELVE HAMMERS.

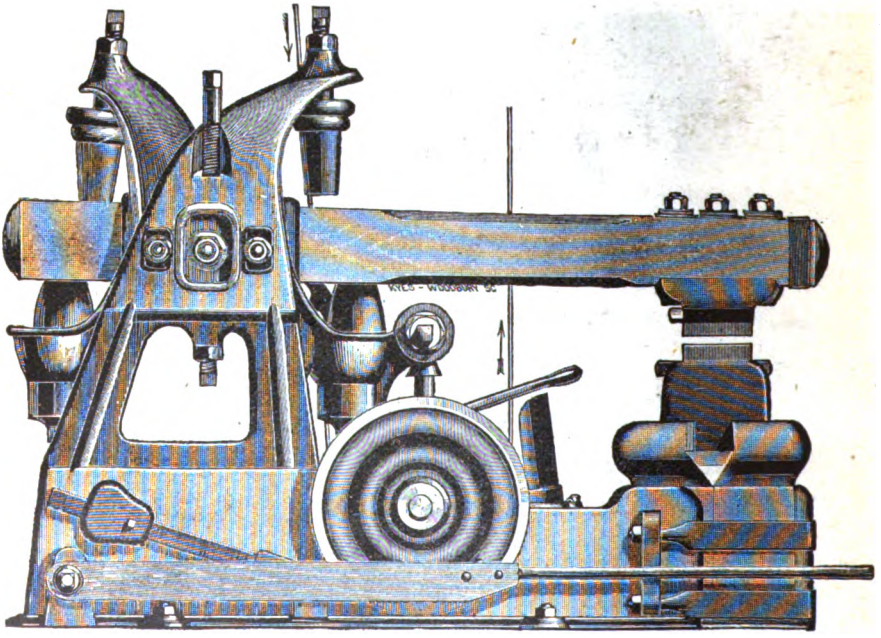

FIG. 3453.

Size of Hammer, Pounds.	Diameter of Driving Pulleys, Inches.	Width of Belt, Inches.	Estimated Horse Power Required.	Average Number of Blows Per Minute.	*Average Size of Iron for Which Suited, Inches.	Floor Space, Inches.
25	12	3	¾ to 1	400	1	68 x 29
40	14	4	1½ to 2	300 to 315	1¼	82 x 34
60	18	6	2 to 2½	290 to 300	1¾	91 x 43
80	18	6	2½ to 3	275	2	96 x 48
100	18	6	2½ to 3	275	2½	96 x 48
200	26	8	3 to 3½	225 to 240	3½ to 4	106 x 54

*Estimates are for Iron, reduce the size one-third for Steel.

Prices and Descriptive Matter on Application.

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SPECIAL NOTICE.

On pages 1197 to 1212 inclusive we illustrate a few of the many Machine Tools, etc., carried in stock by us in our Machinery Department operated under the name of The W. M. Pattison Machinery Co. We expect to issue a machinery catalogue in the near future, but in the meantime will be pleased to furnish descriptive matter, etc., of the various machines we handle.

We are prepared to furnish estimates on complete shop equipments or single tools, in every case furnishing complete descriptive matter.

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THE W. M. PATTISON SUPPLY CO.

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AFTER careful and exhaustive tests we have decided that **STEPHENSON** is not only the **safest** but the **most economical BELT DRESSING.**

Being solid and applied by holding against moving belt, friction heats it and there is no waste. One pound of it is equal to two pounds of liquid.

A Trial Seldom Fails to Bring a Second Order.

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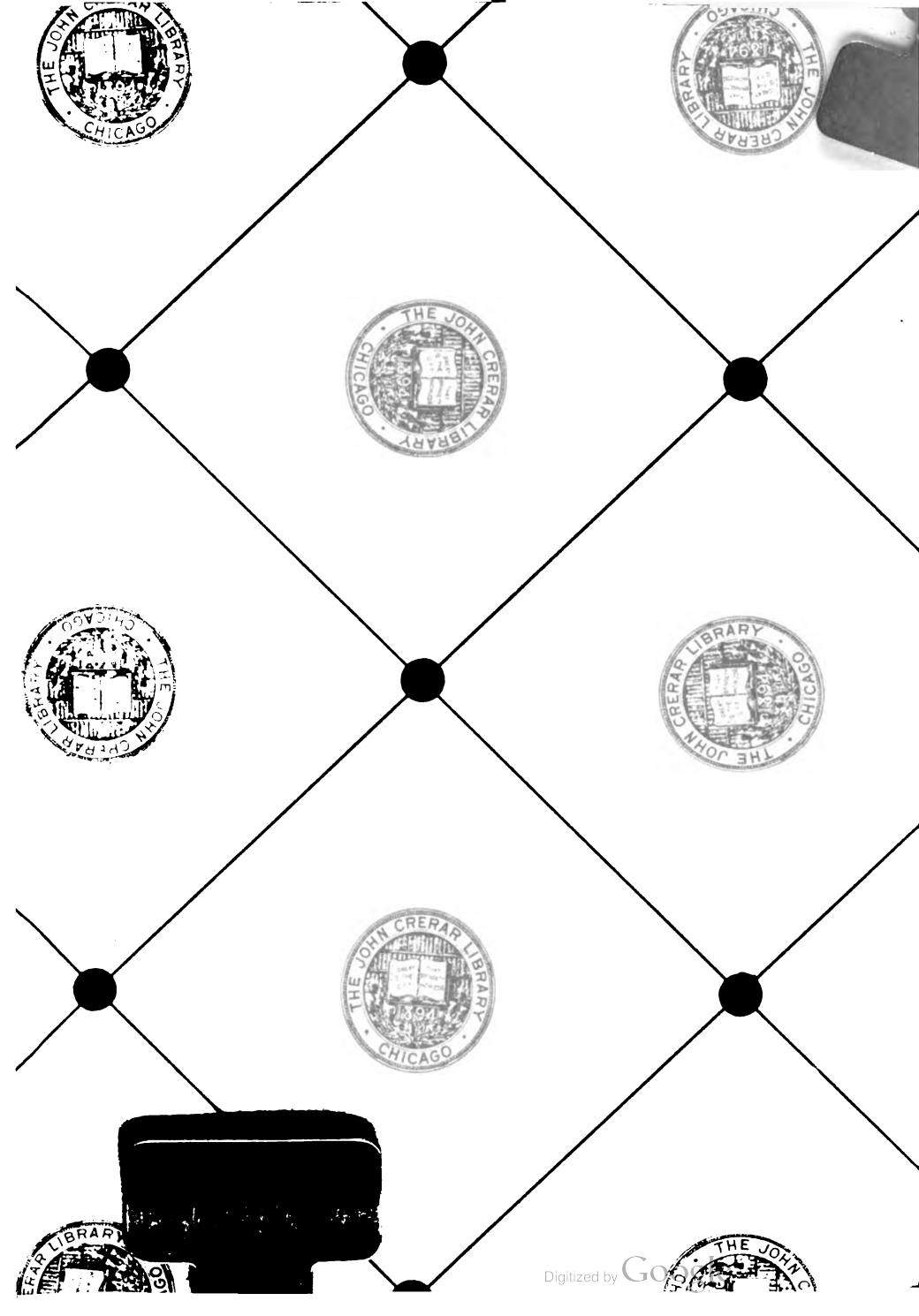
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